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OPTIMIZING THE ECONOMIC GROWTH AND POVERTY REDUCTION BENEFITS OF CAFTA-DR

ACCELERATING TRADE-LED AGRICULTURAL DIVERSIFICATION

VOLUME I

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**ACCELERATING TRADE-LED AGRICULTURAL DIVERSIFICATION
VOLUME I**

Best Practices for Promoting Trade-Led Equitable Growth in the LAC Region
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ACRONYMS

BCN	Banco Central de Nicaragua
CABEI	Central American Bank for Economic Integration
CAC	Central American Agricultural Council
CAP	Common Agricultural Policy
CACM	Central American Common Market
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CBERA	Caribbean Basin Economic Recovery Act
CBTPA	Caribbean Basic Trade Preferences Act
CBI	Caribbean Basin Initiative
CGE	computable general equilibrium
CINDE	Costa Rican Coalition of Development Initiatives
EU	European Union
FAO	Food and Agricultural Organization
FHIA	Honduran Foundation of Agricultural Research
FTA	free trade agreement
FUNDER	Rural Business Development Foundation (Honduras)
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
HIPC	Heavily Indebted Poor Countries
IDB	Inter-American Development Bank
IFPRI	International Food Policy Research Institute
IICA	Inter-American Institute for Cooperation on Agriculture
INIA	National Institute of Agricultural Innovation (Chile)
LAC	Latin America and the Caribbean
MCC	Millennium Challenge Corporation
NAFTA	North American Free Trade Agreement
NAP	National Action Plan
NGO	nongovernmental organization
NTAE	non-traditional agricultural export
OECD	Organization for Economic Cooperation and Development
OIRSA	Organismo Internacional Regional de Sanidad Agropecuaria
PACA	Spanish equivalent to CAP, Common Agricultural Policy
PREAL	Partnership for Educational Revitalization in the Americas
PROCAMPO	Programa de Apoyos Directos al Campo (Mexico)

RTA	Regional Trade Agreement
RUTA	Regional Unit for Technical Assistance
S&T	science and technology
SPS	sanitary and phytosanitary systems
T-LAD	Trade-led Agricultural Diversification
TRQ	tariff rate quota
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
USDA	United States Department of Agriculture
USTR	United States Trade Representative
UNDP	United Nations Development Program
WTO	World Trade Organization

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PREFACE

For 25 years, one principal element of U.S. poverty reduction foreign policy objectives in Latin America and the Caribbean has been the advancement of trade-led growth. The United States-Central America-Dominican Republic Free Trade Agreement (CAFTA-DR) embodies this objective, and is of great interest to a diverse group of stakeholders that includes policymakers; producers, enterprises, and investors; nongovernmental organizations (NGOs); and donor and development assistance partners. However, the experience of Mexico's rural sector in the years subsequent to entry into force of the North American Free Trade Agreement (NAFTA) demonstrates that unless serious structural problems are addressed early on, progress on reducing poverty in the rural sectors of the CAFTA-DR countries will be limited. An International Monetary Fund (IMF) Occasional Paper provides important guidance to CAFTA-DR's considerable stakeholder base:

“As Mexico's NAFTA experience shows, the Central American countries [and the Dominican Republic] must undertake various structural reforms to sustain the potential benefits associated with CAFTA-DR. Although NAFTA has had a significant and favorable impact on exports and foreign direct investments flows, Mexico's growth performance could have been even stronger if structural reforms had been pursued more aggressively. The major lesson from Mexico's experience is that a trade agreement like CAFTA-DR should be used to accelerate, rather than postpone needed structural reform.” (Kose, Rebucci, and Schipke, 2005).

This lesson learned from the experience of Mexico's rural sector under NAFTA has a significant implication for the CAFTA-DR countries. As these countries proceed to implement specific obligations (i.e., “rules of trade” as set forth in the treaty's chapters), each must also advance its own *agenda complementaria* which, among other things, primarily speaks to the structural reform challenges that each country must address to advance trade-led growth, especially in ways that enhance the productive capacity of the agricultural and rural sectors to contribute to and benefit from economic growth in ways that reduce rural poverty.

The challenge of reducing rural poverty in the Central American countries was on the table when, on October 19, 2007, the Central American Ministries of Agriculture approved the new Common Agricultural Policy 2008 - 2017. This CAP — or PACA, as it is known in Spanish — was subsequently approved by the region's Presidents on December 13, 2007.

In the context of the PACA, this study seeks to demonstrate to the CAFTA-DR stakeholder community that a trade-led agricultural diversification strategy should be at the core of each country's *agenda complementaria* — as well as central to the development strategies and programs of donor and development assistance partners. A trade-led agricultural diversification strategy focuses on developing and strengthening market-competitive value chains for higher-value crops and value-added products, through backward and forward linkages with the industrial and services sectors. Trade-led agricultural diversification is the most effective use CAFTA-DR countries can make of the treaty to catalyze economic growth and accelerate poverty reduction in a sustainable manner.

Viewed in this light, CAFTA-DR presents a special opportunity, waiting to be exploited, if CAFTA-DR stakeholders — the public sector, the private sector, and donor and development assistance partners — make the right policy and investment choices to support trade-led agricultural diversification as the cutting-edge strategy for implementing the *agenda complementaria*.

The need to advance trade-led agricultural diversification is made more pressing and complicated by the emergence of previously unanticipated but now very real worldwide commodity price hikes. During 2007, the food price index of the Food and Agriculture Organization rose nearly 40 percent; in 2008, prices are higher than they have been in decades. Higher commodity prices are projected to endure during the bulk of the CAFTA-DR transition period provided to permit signatories to restructure their productive sectors so that they can compete and gain. While the price hike phenomenon only became acute as this study was being completed, the hikes provide an unanticipated windfall to basic grains producers positioned to take advantage of the increased demand for these crops. However, given the sub-optimal economic performance of the CAFTA-DR economies, the high incidence of poverty across the region, and the poor having to spend a disproportionately large proportion of family income to meet basic food requirements, unprecedented thoughtful efforts and discipline will be required to identify the mix of policies and investments required to expand job and wage growth.

This study provides the CAFTA-DR countries with a compelling rationale and guide to help identify the key elements that need to be in place to expand small and medium-sized producers' access to and participation in local, regional, and export markets — in other words, the key elements required for trade-led agricultural diversification to serve as an engine for economic growth and poverty reduction.

CAFTA-DR stakeholders can use this study as a guide to advance *trade-led agricultural diversification (T-LAD)*. Such advancement would be a process that involves: (1) articulating a strategic and programmatic framework; (2) developing a national consensus; (3) building long-term political commitment; (4) mobilizing public, private, and donor support; and (5) implementing a sustained program of assistance. This process — especially in light of comparative experiences in Chile and Mexico — is essential if the CAFTA-DR countries are going to be able to translate their rural sectors' current land and labor resources into market-linked (trade-driven) enterprises that can be the foundation for sustained job and wage growth within an increasingly competitive global marketplace.

While this study provides a strategic framework for readers seeking to identify which assistance interventions would support a trade-led agricultural diversification strategy, the study was not designed to provide country-specific guidance on which combination of assistance activities would garner the greatest return on investment. The study recognizes that, in spite of similarity of constraints across the region, there are important variations from one country to the next that each country must take into consideration when tailoring a general trade-led agricultural diversification strategy to its unique circumstances.

The study, however, does speak to the larger issue of the need for diverse CAFTA-DR stakeholders to come together to articulate, support, and implement a long-term, trade-led agricultural diversification strategy across political administrations.

The study is presented in two volumes. Volume 1 provides a cross-cutting analysis of the potential for trade-led agricultural diversification in CAFTA-DR countries, taking into account the many similar problems faced by all the countries and their shared interest in the most cost-effective interventions to resolve those problems. Volume II provides the individual country reviews that were a primary information resource in preparing the overall regional assessment presented in Volume I.

SUMMARY

The United States-Central America-Dominican Republic Free Trade Agreement (CAFTA-DR) represents a new phase in the evolution of the United States' commitment to advance trade-led economic growth in Latin America and the Caribbean. The treaty also places the agricultural sector and the broader rural economy of CAFTA-DR countries at a crossroads. On the one hand, failure to exploit the opportunities afforded by the treaty would make it difficult for CAFTA-DR countries to accelerate their economic growth, which has not been fast enough in most cases to achieve significant reductions in the incidence of poverty. On the other hand, the agreement has the potential to catalyze trade-led agricultural diversification and greater integration of rural enterprises into agribusiness value chains that can raise the incomes of rural producers and enterprises.

We use “trade-led agricultural diversification” as encompassing three inter-related processes involved in restructuring the agricultural and broader rural sector to respond to the market opportunities and transition period provided under CAFTA-DR:

1. The shift of land and labor resources out of low-value basic grains production and into “new era” higher-value crops or other farm-based enterprises (such as agro-forestry and mixed farming systems, to include livestock and aquaculture) that generate higher-value products for sale in local, regional, and export markets.
2. The emergence and growth of on-farm and off-farm services and enterprises that produce diverse, higher-valued products sold into market-oriented supply chains that respond to the demands of local, regional, and export markets.
3. The broader institutional restructuring required not only in agriculture related public sector institutions (i.e., market information systems, sanitary and phytosanitary systems, technology systems, etc.), but also to facilitate linking agriculture's primary product base to currently under utilized industry and services sectors.

All CAFTA-DR countries share an overarching concern as they proceed to implement the treaty and adjust their productive sectors to maximize the potential benefits of trade-led economic growth: how to articulate and implement their *agenda complementaria*, particularly for their agricultural sectors. The *agenda complementaria* is the term all countries employ to refer to the structural reform challenges that each country must address to advance trade-led growth, especially so as to enhance the productive capacity of the agricultural and rural sectors to contribute to and benefit from economic growth in ways that reduce rural poverty.

To address these challenges, the countries now must articulate, mobilize support for, and implement a market and competitiveness-based strategy to help diversify and develop the agricultural sector and the rural economy. This study aims to assist key CAFTA-DR stakeholders in articulating, mobilizing support for, and implementing a *trade-led agricultural diversification strategy (T-LAD)* as the core component of the *agenda complementaria*.

The study provides a multifaceted analysis of ongoing government, private sector, and donor responses to changing market-based realities within policy frameworks that, despite some significant reforms, retain elements of the import substitution policies that were dominant in the CAFTA-DR countries before the early 1980s. It seeks to highlight lessons learned from previous free trade agreements (FTAs) in Latin America, and to suggest key strategic interventions that stakeholders can embrace to promote trade-led, equitable growth under CAFTA-DR and the numerous other free trade agreements these countries are implementing or negotiating.

As countries seek to implement and benefit from CAFTA-DR, and as their productive sectors gear up to produce goods and services demanded by the U.S. market, they face a number of worrisome trends and significant structural impediments to generating broad-based economic growth and poverty reduction. These include:

- Despite varying degrees of trade and price liberalization, the economies of all the CAFTA-DR countries continue to be constrained by public and private sector vestiges of the import substitution and related protectionist mindset, institutions, and domestic political structures that have impeded appreciation not only of the need for an export orientation, but also of the potential for trade-led diversification of the agricultural sector to stimulate economic growth. Thus, competitiveness capacities for trade-led agricultural diversification have not grown rapidly.
- Despite increased remittances to the region and some expansion of targeted public assistance to the rural poor, the region continues to register high levels of poverty and extreme poverty, due mainly to the size of the lower-value basic grains production sub-sector.
- Industrial sector growth has not been sufficient over a prolonged period to generate the job and wage growth needed to significantly reduce rural poverty. While agriculture's share of total employment has declined in relative terms, and net migration to urban areas (and abroad) has continued to take place, many of those leaving rural areas have found work only in low-productivity service occupations, often in the so-called "informal sector." Indeed, during recent years, it is worrisome that the number of workers employed in agriculture, primarily in lower-value basic grains production, has grown in most of the countries reviewed. This notably large sub-sector of small-scale farmers, producing so-called "sensitive" basic grains crops or other commodities, fears it will be increasingly difficult to find off-farm employment and/or to compete as tariffs on imports of those crops and commodities decline or disappear under CAFTA-DR.
- As countries sought to comply with the fiscal restraint provisions of IMF structural adjustment programs, they tended to favor expenditure reductions over tax increases. As a result, public sector and major donor support for the agricultural sector was reduced without a concomitant gearing up of alternative (public and/or private) institutional capacities to support producers and enterprises in building capacity to respond to unprecedented market opportunities in the global economy.

- Despite the great potential to access the U.S. market under the Caribbean Basin Initiative (CBI), the countries' performance in diversifying their agricultural and non-agricultural sectors into more remunerative, competition-based, and trade-linked enterprises was sub-optimal. While the region experienced significant increases in both exports of non-traditional agricultural products and GDP during the early to late 1990s, since the mid to late 1990s growth rates for exports generally, GDP, and agricultural GDP have declined. This, in part, is reflected in the loss of U.S. market share in *maquila* (apparel assembly) and some horticultural (fruit and vegetable) crops.
- In all the countries reviewed, the broad agro-industry sector — defined as including both the traditional agricultural primary production sub-sector and the agro-industrial processing sub-sector — is becoming an important economic base. However, given the low productivity and competitiveness levels of agro-industry, the CAFTA-DR countries did not optimally capitalize on the market opportunities that were available under the CBI. This trend will likely continue under CAFTA-DR, unless appropriate strategic interventions, policy reforms, and investments are made.

The above factors point to a rural-based productive sector that is ill-prepared to compete and benefit under CAFTA-DR specifically and globalization generally. As constituted, small- and medium-sized producers and enterprises confront sub-optimal access to market information, technology, new technical and managerial skills, financing, or other support (e.g., irrigation) to compete and benefit from producing higher value crops and value-added products that must comply with market requirements including sanitary and phytosanitary standards.

Over the past thirty years, developing countries worldwide, including the CAFTA-DR countries, have promoted agricultural and rural development through some combination of: (1) a **trade-led** model that has tended to stimulate economic progress; and (2) a **protectionist** model that generally has perpetuated poverty and dependence.

Within the Latin American and Caribbean (LAC) region, the trade-led model was developed most notably in Chile and to a much lesser degree in Central America (except for Costa Rica) and the Dominican Republic beginning in the 1980s under the CBI. In this model, the broad agribusiness sector — including agricultural production and related value-added processing and services — became a major driver of and contributor to economic growth. The trade-led model is defined by a strong national commitment to creating an enabling environment for strengthening policies and support services that facilitate increased investments in trade-led growth. Such an enabling environment encourages investment in market-oriented agribusinesses that: (1) link producers of differentiated traditional exports (e.g. high-value coffee and cocoa) to dynamic markets; and/or (2) promote diversification from basic food crops (e.g. grains) into higher-value, resource-based enterprises such as aquaculture and seafood, nontraditional fruits and vegetables, and certified forestry, many of which are linked to processing industries using advanced technologies.

Chile, the premier example of this model, dramatically reoriented its agricultural sector toward export-led growth by unilaterally reducing tariffs and establishing an enabling environment for trade-led growth. This entailed investing in infrastructure, market promotion, research and

development, financing, and human capacity building, including special efforts to reach small-scale producers. The model contributed to an increase in rural jobs and income and a notable decline in rural poverty, especially after 1990, when government programs were better targeted to the poor. The CBI countries sought to adopt the same basic model, starting at various times from the early 1980s to the early 1990s — but to a notably lesser extent than Chile, even with the considerable assistance from USAID and other donors. Agricultural and agro-industrial exports initially expanded significantly. But insufficient attention to competitiveness led to sub-optimal results, including declining productivity levels and, in some cases, loss of export market shares.

The consequences of the alternative “protectionist model” directly associated with the objectives of the import substitution economic regime are most clearly exemplified by southern Mexico over the past 15 years under the North American Free Trade Agreement (NAFTA). But it also was followed in varying degrees in Central America and the Dominican Republic. These countries, while continuing to impose high tariffs to protect producers of basic grains and other sensitive commodities from import competition, seldom introduced services to facilitate and support producers in reallocating land and labor resources into nontraditional exports and in building competitiveness in these promising alternatives. In Mexico, the two principal support programs were the *Programa de Apoyos Directos al Campo* (PROCAMPO) and the *Alianza Para El Campo*. The main purpose of PROCAMPO was to provide income support to basic grain producers through cash transfers to replace distortional subsidies, thereby compensating producers for expected income reductions as NAFTA entered into force.

The *Alianza Para El Campo* began with subsidy payments to commercial producers but was later broadened to facilitate more directly enterprise diversification by assisting smaller producers in technology transfer, irrigation installation, dairy and livestock, agro-industry, and rural development support. While these efforts improved performance on some farm enterprises, broadly speaking, these were insufficient to cope successfully with the much higher risks associated with diversifying out of basic food crops into higher-value products during the transition period provided under NAFTA. The consequences of these approaches sometimes led to declines in household incomes, stalled diversification, and greater internal and external migration, particularly in southern Mexico. In January 2008, as tariffs for the few remaining sensitive products were lowered to zero, Mexican small and medium producers and some congressional leaders were voicing loud opposition to NAFTA and calling for its renegotiation.

While the large revenue stream from Mexico’s oil exports helped to finance PROCAMPO and Alianza, these programs failed to generate the economic growth in the south required to reduce rural poverty significantly, as most small-scale farmers lacked both the incentive and the means — market linkages and support — needed to reduce risks and facilitate competition-based diversification linked to value-chain growth. Significant consequences of this model’s failure include increased emigration to the United States, accelerated environmental degradation and greater dependence on remittances.

This study, based on the comprehensive country reviews in Volume II and review of pertinent literature, concludes that CAFTA-DR presents both an opportunity and an impetus for Central America and the Dominican Republic to focus to a greater extent on the trade-led model of development as an engine for achieving broad-based economic growth and poverty reduction in

rural areas. At the core of this model is the need to direct increased attention to formulating policies and making investments that more effectively support trade-led agricultural diversification as a catalyst for rural economic growth and poverty reduction. This entails fostering the development of value chains in which the contribution of primary production agriculture is increased through currently under-exploited backward and forward linkages with each country's industrial and service sectors (i.e., technology, production inputs, processing, packaging, transport, certification, and financing, among others).

To capitalize on the potential for CAFTA-DR to drive economic growth and poverty reduction, a key first step will be to identify, develop, and implement an aggressive campaign to marshal the countries' institutions — government ministries, the private sector (including investors), nongovernmental organizations (NGOs), universities, civil society, and donors — into a concerted effort to focus on and accelerate the process of trade-led agricultural diversification. As evidenced by the experience of Chile, a national-level commitment to a long-term effort — one that transcends administrations and shifts in political power — is essential for stimulating private investment and attracting the supplementary donor support required to integrate rural sectors into the international economy in a way that boosts rural employment and incomes to the point of significantly reducing rural poverty.

This study, highlighting the unique situation of each country in the light of lessons learned from Chile and Mexico, identifies key elements for successful trade-led agricultural diversification that all stakeholders need to embrace, support, and apply in order to leverage the opportunities presented by free trade under CAFTA-DR. In the increasingly competitive global economy, the CAFTA-DR countries should act quickly to make appropriate strategy, policy, program, and investment choices.

In summary, the study identifies the following areas (discussed in greater detail in Section 5) in which the CAFTA-DR countries can take steps to advance trade-led agricultural diversification:

- Foster discussions to build consensus on a national vision and long-term commitment to optimizing the benefits of trade-led agricultural diversification. With such a consensus and commitment, individual countries would be better positioned to seek donor support for their investment needs.
- Strengthen policy analysis and strategic planning.
- Carefully craft and implement a CAFTA-DR outreach message campaign.
- Strengthen technology development and outreach systems and networks.
- Strengthen plant and animal health and food safety systems.
- Expand the human capital base.
- Improve and expand rural infrastructure, financing investments with both public and private resources as well as donor funds.

- Improve the availability of and access to financial resources in order to facilitate farm and agro-processing enterprise shifts.
- Harness donor resources in support of a common long-term strategic framework.
- Foster increased coordination with the donor and business communities on trade-led agricultural diversification at both country and Washington, D.C. levels.

This study aims to inform and encourage CAFTA-DR stakeholders to more seriously discuss the opportunities for and challenges to trade-led agricultural diversification, build consensus on needed reforms, and implement prioritized plans to leverage and invest the resources essential to transition to liberalized trade. In this context, agricultural diversification becomes an essential but not the sole component of rural development. The CAFTA-DR countries must also take actions to improve education and health services; expand infrastructure (especially roads, energy, irrigation, and telecommunications); ensure that investments are made in an environmentally sustainable manner; and strengthen the overall enabling environment for rural development — and “doing business” more broadly — especially through fiscal discipline, complementary economic policy reforms, and supportive legal and regulatory reforms. These measures will help level and prepare the playing field for appropriately endowed small-scale producers and rural enterprises, allowing them to take advantage of the potential of CAFTA-DR to catalyze economic growth and poverty reduction.

The United States and its CAFTA-DR partners should not underestimate the potential for trade-led agricultural diversification to drive economic growth and poverty reduction. Doing so would translate into a failure to make the policy and budgetary choices required to help the CAFTA-DR countries develop the capacity of their rural-based enterprises to contribute to and benefit from trade-led diversification. This study demonstrates (particularly through the country-specific reviews of the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua presented in Volume II) that each country in the region needs to act quickly and creatively to formulate, finance, and implement a strategy with this focus.

SECTION 1. INTRODUCTION

A. THE CAFTA-DR AGREEMENT AND ITS CHALLENGES TO RURAL DEVELOPMENT

On May 28, 2004, U.S. and Central American trade negotiators signed the United States-Central America Free Trade Agreement (CAFTA). In August of that year, the Dominican Republic, which negotiated separately, was incorporated into the Agreement, thereby establishing the United States-Central America-Dominican Republic Free Trade Agreement (CAFTA-DR). President Bush signed the bill ratifying the treaty on August 2, 2005. The CAFTA-DR was implemented on a rolling basis as each country fulfilled its obligations. As of September 2007, six countries (including the U.S.) had begun implementing CAFTA-DR. Costa Rican voters approved the treaty in a referendum in October 2007, setting the stage for the treaty to be brought into force once that country fulfills its obligations.

While a number of studies have shown that small-scale producers of basic grains and other sensitive products will find it increasingly difficult to compete as applied tariffs on imports of those products from the United States decline or disappear under the treaty, these effects on particular producers are likely to be outweighed by the anticipated positive benefits generated by trade liberalization — including lower prices for food and other products consumed by the poor. However, those small farmers who face new challenges resulting from the Agreement will need help in making the adjustment to more productive economic activities, within or outside the agricultural sector.

This study examines measures for stimulating agricultural and other rural diversification, supported by backward and forward linkages with the industrial and service sectors, as an engine for accelerating overall economic growth, creating jobs, and raising household incomes. If appropriately assisted, diversification will not only mitigate the challenges of trade liberalization faced by some segments of CAFTA-DR populations, but also contribute to economic growth, poverty reduction, and enhancement of the natural resource base. Specifically, the study seeks to enhance the ability of government policymakers in the CAFTA-DR countries and their partners (e.g., USAID bilateral missions, private sector leaders, U.S. government agencies, and other donors) to reflect on strategic options to capitalize more effectively on the opportunities and challenges, under the Agreement, to foster robust and sustainable growth in the agricultural sectors and broader rural economies of the region's countries.

B. POVERTY CONCERNS

After the “lost decade” of the 1980s and disillusionment with import substitution policies, there was a widely held belief that economic policy reforms would spur poverty reduction throughout Latin America and the Caribbean. The new optimism was based on the premise that, in response to an improved policy environment, enterprises would expand to absorb previously underutilized land and labor factors, thereby stimulating broad-based job and wage growth and reducing poverty more rapidly. Since 1994, 79 new free trade agreements (FTAs), partial agreements, or frameworks have been initiated in the LAC region (Organization of American States, Foreign Trade Information System [SICE], 2006). Nevertheless, the incidence of poverty in the LAC

region remains high, despite falling from 48.3 percent of the population in 1990 to 39.8 percent in 2005. The indigence (extreme poverty) rate fell during this period from 22.5 percent to 15.4 percent. In rural areas, the incidence of poverty fell more slowly, from 65.4 percent to 58.8 percent, while the extreme poverty rate declined from 40.4 percent to 32.5 percent (UN-ECLAC 2006b). The absolute number of poor rural residents fell from 78.5 million to 71.1 million, while the rural population in extreme poverty fell from 48.4 million to 39.3 million (UN-ECLAC 2006b).¹

Despite the aforementioned inroads on reducing poverty in the LAC region, the incidence of poverty and indigence in the CAFTA-DR countries is higher than the LAC average, except in Costa Rica where it is significantly lower. Rural poverty rates are higher than those in urban areas. For the CAFTA-DR region as a whole, poverty and indigence rates have fallen since 1990, but not as much as the LAC average (see Annex C, Tables C.1 and C.2). Progress in poverty reduction, particularly in the rural sector, has been limited by the region's relatively weak economic growth since the late 1990s (see Annex C, Table C.3).

C. STUDY DEFINITION AND SCOPE

This review, while not focusing primarily on the poverty “problem,” does identify areas in which appropriately targeted policy reforms in support of CAFTA-DR can foster increased participation of poor rural households in trade-led agricultural diversification. We use “trade-led agricultural diversification” as encompassing three inter-related processes involved in restructuring the agricultural and broader rural sector to respond to the market opportunities and transition period provided under CAFTA-DR:

1. The shift of land and labor resources out of low-value basic grains production and into “new era” higher-value crops or other farm-based enterprises (such as agro-forestry and mixed farming systems, to include livestock and aquaculture) that generate higher-value products for sale in local, regional, and export markets.
2. The emergence and growth of on-farm and off-farm services and enterprises that produce diverse higher-valued products sold into market-oriented supply chains that respond to the demands of local, regional, and export markets.
3. The broader institutional restructuring required to link agriculture's primary product base to currently under-exploited industry and services sectors, but also in agriculture-related public sector institutions (i.e., market information systems, sanitary and phytosanitary systems, technology systems, etc.), to facilitate backward and forward linkages between agriculture and the industrial and services sectors.

How quickly these three processes advance and mutually support one another plays a major role in determining how quickly a traditional agricultural sector still influenced by an import substitution and related “protectionist” legacy can be transformed into a dynamic trade-led

¹ Some of the poverty data reported in the country reviews in Vol. II may come from different sources and not always match the UN-ECLAC data reported in this paragraph and in Annex C.

agricultural sector that contributes to economic growth and poverty reduction on a market-linked and sustainable basis.

Appropriate attention to increased participation of poor rural households in the trade-led agricultural diversification process would replicate the successful model of trade-led diversification implemented to varying degrees elsewhere in the LAC region, most notably in Chile and in Costa Rica. In contrast, Mexico (for its relatively poor southern states) and most CAFTA-DR countries have protected their basic grains producers, both subsistence- and market-oriented, leaving them highly vulnerable to growing competition as tariff rates fall, especially because the region's governments have done relatively little to facilitate the transition of such rural producers to more remunerative enterprises, both on- and off-farm.

This study helps fill gaps in the CAFTA-DR literature and broader studies on the new global era of trade-led growth. Some analysis has been carried out for the region on economy-wide trade, economic growth, and poverty dynamics and their relationships. But analysts have devoted little attention to reviewing agricultural sector complementarities and identifying key cross-cutting steps and initiatives that, if undertaken, would: (1) enhance rural competitiveness; (2) reduce farm-level risks; and (3) stimulate income and job growth through inter-sectoral ties that more efficiently link land and labor to value-added and market-linked rural enterprises in ways that facilitate broader participation of the rural population. After examining these issues, the study suggests strategic steps to help small producers, agribusinesses, and other investors in CAFTA-DR countries diversify out of basic grains production toward non-traditional agricultural exports (NTAEs); specialized traditional exports such as organic coffee, cocoa beans, and basic grains (targeting ethnic and regional markets); and other economic activities capable of generating higher incomes under CAFTA-DR and other FTAs. In the context of International Food Policy Research Institute (IFPRI 2008) projections that food price hikes will endure for some time, this study articulates the need to address food insecurity by a strategy that is focused on creating more optimal levels of job and wage growth in the rural sector.

The challenge for the CAFTA-DR countries is to ensure that the potential for trade-led agricultural diversification to drive economic growth and poverty reduction is not further underestimated. Such an underestimation would translate into a failure to make the policy and budgetary choices required to help the CAFTA-DR countries develop the capacity of their rural-based enterprises to contribute to and benefit from trade-led agricultural diversification as an engine of national economic growth and poverty reduction. However, if the CAFTA-DR countries act quickly and aggressively to make the right strategic policy choices, institutional reforms, and public and private investments, the Agreement can serve as the catalyst for broadening and deepening trade-led agricultural diversification as a proven economic growth and poverty reduction model. If the countries don't make the right choices, the social consequences will be sub-optimal or worse on diverse fronts that include environmental degradation and continuing poverty that would engender an escalation of rural and urban crime and violence, drug and human trafficking, and illegal northward migration.

Trade-led agricultural diversification — the main focus of this study — is an essential but not the sole component of rural development. Failure to address other key requirements will constrain rural income growth and poverty reduction. The CAFTA-DR countries must also take actions to

improve educational and health services; upgrade and expand infrastructure (especially roads, energy, and telecommunications); ensure that investments are made in an environmentally sustainable manner; and strengthen the overall enabling conditions for rural development, especially through fiscal and other economic policy reforms.

D. ORGANIZATION OF THE STUDY

This study is presented in two volumes. Volume I provides a crosscutting analysis of the potential for trade-led agricultural diversification in the CAFTA-DR countries, taking into account the many similar problems faced by all the countries and the shared interest of all CAFTA-DR stakeholders to identify the most cost-effective interventions to resolve those problems. Volume II provides the individual country reviews that were a primary information resource for preparing the overall regional assessment presented in Volume I.

Following this introductory section:

- Section 2 examines the importance and performance of the agricultural sectors of the CAFTA-DR countries since 1980 and identifies obstacles to faster growth.
- Section 3 looks at the new export opportunities and challenges provided, first under the Caribbean Basin Initiative and now under CAFTA-DR.
- Section 4 examines lessons learned from Chile and Mexico, as well as from Costa Rica, whose agricultural sectors have been more successful than those of other countries in the CAFTA-DR region.
- Section 5 provides conclusions and recommendations.

Volume II includes five detailed country reviews, specifically for the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua, as well as shorter reviews for Costa Rica, Chile, and Mexico.

E. NOTE ON METHODOLOGY

This study is based on an extensive review of the literature (Volume I, Annex A), stakeholder interviews in the CAFTA-DR countries and Washington, D.C. (Volume I, Annex B), and analysis of the data and information compiled, including the detailed country reviews in Volume II. The country reviews employed a standardized structure and were based on literature and data reviews, analyses of each country's strategic agenda, and consultations with key country-level institutions and stakeholders. In each country, interviews were conducted with around 50 respondents, representing government agencies, small and large-scale producers, producer and business organizations, nongovernmental organizations (NGOs), civil society groups, the academic community, and international organizations. Stakeholders were selected with guidance from USAID/Washington, individual USAID missions, international financial institutions, and other international organizations, as well as recommendations from local stakeholders (for a list of interviewees, see Annex B). Stakeholders in each country provided various perspectives

regarding CAFTA-DR and rural diversification that, taken collectively, point to a need for a range of interventions, the most significant of which are presented in this study.

While the scope of the study is broad, time and resource constraints permitted only limited attention to and preliminary findings with respect to a number of key areas: infrastructure shortages, agrarian reform issues (e.g. property titling), human capital investment in rural education, public and private sector capacities to meet the challenges of CAFTA-DR, broader opportunities in rural areas for producing non-agricultural goods and services (including ecotourism, which has significant backward linkages to agriculture, and handicraft production, which has linkages to both rural and urban tourism), the forestry sub-sector, environmental issues, and the recent food price increase crisis. Also, while some ongoing donor-funded projects are mentioned, the study does not provide in-depth evaluation of individual projects. Each of these topics, however, merits more careful consideration by each CAFTA-DR country as it formulates and articulates a comprehensive, trade-led agricultural diversification strategy tailored to its own unique circumstances.

Further, in some cases, there was insufficient time to carry out follow-up research and provide detailed explanations on many key points raised during the data or stakeholder reviews; in this regard, reviewers will certainly note points where additional research is needed. Where the study ran into deficiencies (e.g., inconsistencies between data sources), such deficiencies are noted as footnotes in the tables, graphs, or body of the text.

Finally, the report does not include detailed information and analysis on current or historical trends in donor support for trade-led agricultural diversification or trade capacity building more broadly. Information on USAID and other USG agencies' support for trade capacity building is available at the searchable USG Trade Capacity Building Database at:

<http://quesdb.usaid.gov/tcb/index.html>.

Despite these limitations, readers should find in Volume I — and the companion Volume II, individual country reviews — a wealth of findings, conclusions, and recommendations that will help enrich national dialogues focused on building a consensus on the steps each CAFTA-DR country needs to take to maximize the potential for trade-led agricultural diversification to contribute to economic growth and poverty reduction in the course of successfully implementing and benefiting from CAFTA-DR.

Annex references pertain to Volume I, unless otherwise stated.

SECTION 2. AGRICULTURE'S PERFORMANCE SINCE 1980 AND OBSTACLES TO FASTER GROWTH

A. INTRODUCTION

There is a continuing strong perception — even conviction — within the CAFTA-DR countries that their agricultural sectors, in their current status, will not be able to compete in basic grains and other sensitive commodities once tariffs are lowered and cheaper commodities enter national markets. Also evident is a poor understanding of the opportunities provided by trade liberalization for stimulating job and wage growth by linking agriculture to other sectors through powerful, market-based value chains. This combination of strong perceptions and poor understanding is a product of several factors, including the less dominant but still influential mindset, institutional base, and support programs associated with import substitution and related protectionist policies, limited food security structures, inefficiently produced crops, and insufficient levels of investment in the rural sector.

At the same time, export subsidies and other support programs continue to benefit large-scale agricultural producers in the developed countries, thus making it difficult if not impossible for small-scale producers of basic grains in developing countries to compete in global markets. As of this writing, it is unclear whether or when the ongoing trade talks — i.e., the Doha Development Agenda of the World Trade Organization (WTO) — will achieve an agreement under which the developed countries would begin dismantling an incentive structure (e.g., export subsidies and domestic support to agriculture) inconsistent with the higher-level goal that all countries reap the economic and social benefits of free trade.

The situation is further exacerbated by the exceptionally high food prices observed globally. *The Economist's* food price index is higher today than at any time since its creation in 1845 (*The Economist* 2007). This trend, projected to continue at least over the medium-term, results from multiple, inter-related developments to include: 1) growing global urbanization and the economies of China and India observing fundamental dietary shifts from traditional staples to higher-valued commodities including fresh fruits and vegetables, processed products such as coffee, cacao and other beverages, and meats and dairy products; and 2) record high energy costs increasing fertilizer and input prices while stimulating production of crops for sale not as food and feed grains but rather as inputs for the production of biofuels. These factors, including others such as the prolonged Australian drought, have converged to produce the lowest levels of commodity stocks in more than 25 years. This development reverses a quarter century of declining commodity prices to present serious consequences for producers and consumers and for national governments, international donors, and U.S. policy makers. These dynamics were not explicit during the negotiation of CAFTA-DR or in much of the analytical work on the treaty's potential impact. However, in the context of the current situation, these dynamics have the potential to help stimulate the most appropriate medium-term strategic responses.

The sub-sections that follow review trends in agricultural sector performance in the CAFTA-DR countries since 1980, changes in the structure of production, and obstacles to trade-led agricultural growth and broader rural development and national economic gains.

B. AGRICULTURE'S CONTRIBUTION TO GDP AND EMPLOYMENT

Theoretical Expectations

Historically, as captured in the context of “structural transformation,” agriculture’s share of gross domestic product (GDP) and employment has fallen over time as a country’s per capita income grows, the basic food requirements of its residents are gradually met and urbanization expands, and the structure of consumer demand shifts increasingly toward manufactured goods and services as well as higher-priced food and beverage products. The extent of agriculture’s relative decline will depend on the growth of aggregate GDP, the specific performance of agriculture as normally defined by its primary production role, and the extent to which the value-added contributions of the industrial and services sectors grow. Structural transformation is also facilitated by increasing agricultural productivity (increased yields per labor and land unit) in ways that generate increased demand for non-tradable and tradable goods and services that then stimulate improved rural incomes and jobs evolving from a more dynamic agriculture (Haggblade, Hazell, and Reardon 2007). This is a long and not necessarily uniform process but, in general, at the final stages of the transformation process, the faster aggregate GDP grows (based increasingly on the production of manufactured goods and services for domestic and export markets), the more rapidly agriculture’s share of GDP declines.

In the context of this assessment and the reality that most of the poor are in the rural sector and directly engaged in agriculture as farmers or laborers, the agricultural sector’s actual contribution within this standard framework provides an invaluable reference to assess a country’s overall economic development over time.

CAFTA-DR and Sector-Level Dynamics

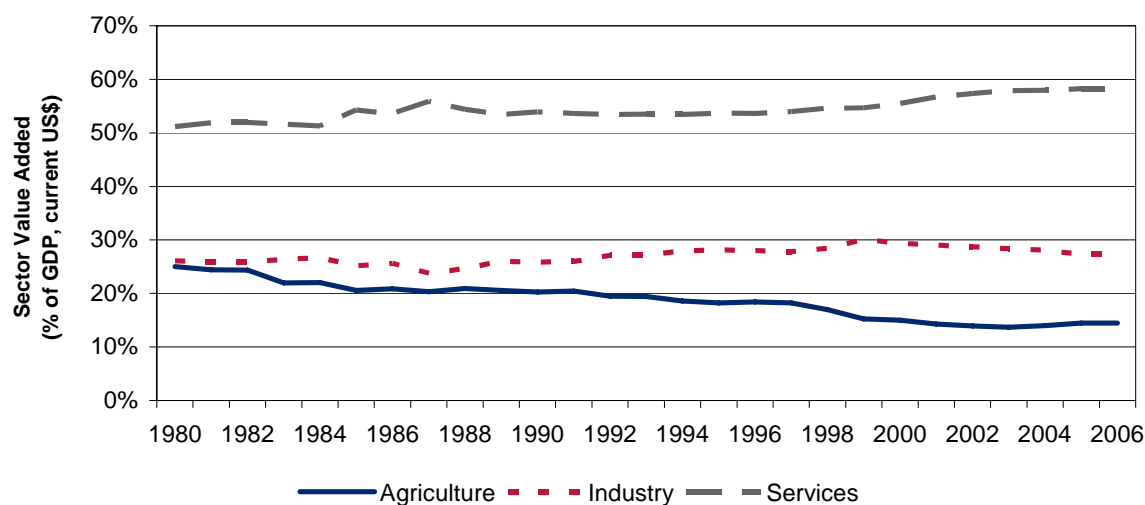
Graph 2.1 summarizes the economic performance of the region’s six countries (as a group) over a 25-year period, in terms of an unweighted average to track changes in sector share of GDP² for agriculture (solid line) relative to industry (dotted line) and services (dashed line). Note (1) that the graph tracks sector shifts beginning during the latter phase of the import substitution era, the initiation of the Structural Adjustment and Caribbean Basin Initiative (CBI) periods; and (2) that agriculture is defined only in terms of its primary production economic contribution across four sub-sectors — crops, livestock, forestry, and fishing.

In the context of structural transformation, agriculture’s share of GDP in the CAFTA-DR countries declined slowly from an unweighted average of 25 percent in 1980 to 15 percent in 2006. Given volatility in annual agricultural production and prices, as well as variations in overall macroeconomic performance, the decline has been moderate but not always uniform. For example, in periods of slow GDP growth, such as the mid-1980s to the early 1990s, or the early years of the present decade, agriculture’s share of GDP in current prices was flat and even rose in recent years in all countries except Honduras. Nevertheless, the overall declining trend is clear. If comparable constant price data were available for all countries over this entire period, they

² The underlying data measure value-added in current prices, so that trends over time reflect both changes in the volume of output and changes in agricultural prices relative to those for other goods and services. Since relative agricultural prices have fallen over the long run (recent increases notwithstanding), part of the decline shown in Graph 2.1 reflects relative price trends. Since the decline in relative prices has been uneven, however, the extent to which sector-share changes over short periods of time reflect real changes in output — as opposed to price changes — is not clear without more detailed analysis.

would likewise show a decline in agriculture’s share of GDP, although of a lesser magnitude, since these data do take into account the relative long-run decline of agricultural prices.³ Generally, what becomes clear for the CAFTA-DR countries is that structural transformation of the economy stalled—overall, the services and industrial sectors of the region’s economies have not expanded sufficiently to “pull” labor out of the rural sector at the same time that the agricultural sector, relative to potential, has lagged in shifting land and labor out of low-value basic food grains production and into higher-value crops and value-added products.

Graph 2.1. Sector Value-Added, Percent of GDP, CAFTA-DR Average (1980-2006)



Source: World Bank 2007; Central Bank of Nicaragua 2007; Central Bank of Costa Rica 2007; Central Bank of El Salvador 2007.

Looking at a more recent time period, from the 1980s to 1999, the shift in the composition of GDP away from agriculture moderately raised the shares of the industrial and services sectors roughly equally, although these two sectors showed different patterns of relative growth over time. Since 1999, however, industry’s share of GDP in current prices has declined, services’ share has increased, and agriculture’s share has flattened or, for most countries, actually increased.⁴

By the mid-2000s, the implications for the agricultural sector in the CAFTA-DR countries had become clear. These countries’ industrial and services sectors had not expanded sufficiently to “pull” labor out of agriculture, while at the same time the sector has yet to improve productivity and shift out of low-value enterprises (i.e., basic grains) and into higher-valued crops and valued-added products for export. As a result, structural transformation in the CAFTA-DR countries has advanced slowly, with the economy’s largest employer — agriculture — continuing to be the

³ For a comparison of agricultural sector shares of GDP in the five Central American countries between the late 1970s and the late 1990s, in both current and constant prices, see Zuvekas (2000: unpublished Annex Tables A-1, pp. 86-88, available from the author).

⁴ One might speculate that the decline in industry’s share of GDP in current prices is a reflection in part of downward pressures on the prices of local manufactured goods as a result of the increased competition from abroad brought about by trade liberalization. Additional research would be needed to test the validity of this interpretation.

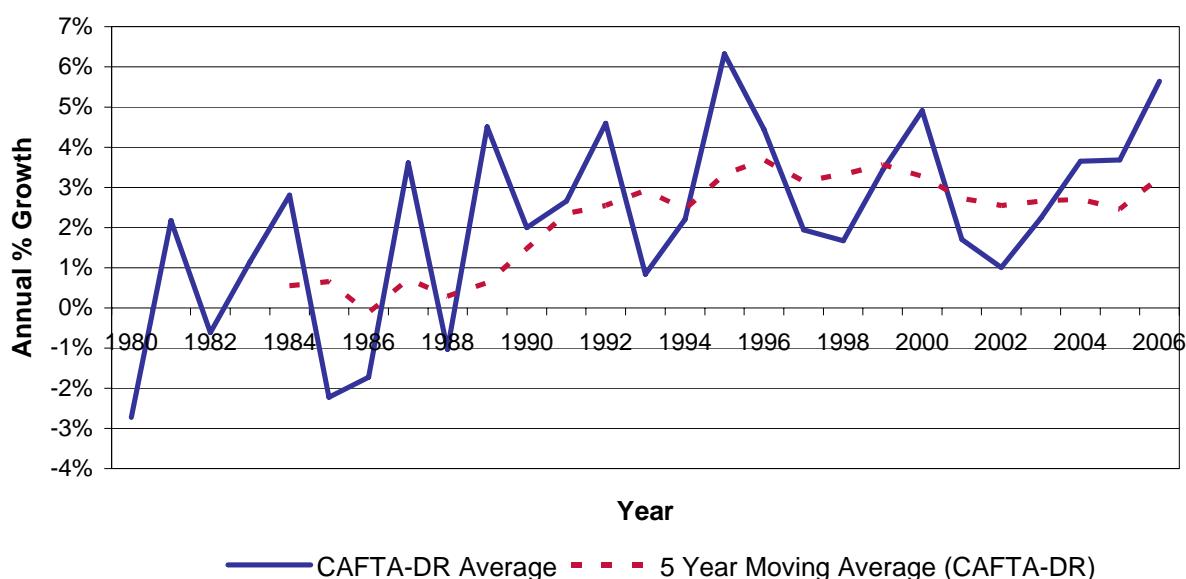
least remunerative sector employing the largest percentage of poor people. A major consequence, as discussed in greater detail further below, has been slow national wage growth.

Further, throughout the lower income LAC countries, 43 percent of caloric intake is from “low value” foods (i.e., corn, bean, rice, sorghum, and wheat) that comprise the nutritive base of the poor (Fritschol 2008). While lower food costs facilitate expansion of employment in industry, such facilitation is now seriously constrained by higher food prices that work against a “cheap food” strategy as a driver for structural transformation. Moreover, in the CAFTA-DR countries, the large number of small-scale producers of traditionally low-value food crops actually are “net food consumers” who now have to buy food in the market at even higher prices (Jaramillo and Lederman 2006). This gives even more credence to this study’s overarching strategic conclusion that trade-led agricultural diversification is needed for job and wage growth in the rural areas and the economy overall.

Agriculture’s Evolving and Greater Potential Contribution to GDP.

Improved agricultural growth rates are critical to reducing poverty. The World Bank’s review of Structural Adjustment lending experiences concluded that higher sector growth rates are likely to have a “strong, immediate, and favorable impact” on reducing poverty. This review noted that sector growth rates exceeding three percent produce a decline in the World Bank’s poverty index, while in no case did poverty decline by more than one percent if sector growth was less than one percent (World Bank 1996). Graph 2.2 presents the region’s agricultural sector growth rates covering the period 1980-2006. Corresponding country-level data are provided in Annex C.

**Graph 2.2. Unweighted Average CAFTA-DR Real Agricultural Sector Growth Rate
1980 – 2006 (Constant 2000 US\$)**



Source: World Bank 2007; Central Bank of Nicaragua 2007; Central Bank of Costa Rica 2007; Central Bank of El Salvador 2007.

The volatility of the agricultural sector’s growth rate in the CAFTA-DR region reflects a variety of factors, including variable weather conditions and natural disasters, overall macroeconomic

performance and, over time, the cumulative effect of policy and investment responses. From 1980 to 1985, when the region was in the throes of a major debt crisis and several Central American countries were engaged in internal armed conflict, the CAFTA-DR (unweighted average) *real GDP growth rate was 0.3 percent, and the corresponding growth rate for agriculture was a mere 0.1 percent.* Compared with the World Bank weighted average of 1.9 percent over the same period for 49 low-income countries excluding China and India, the region's performance was notably poor. However, in response to macroeconomic reforms and the increased opportunities in the U.S. market provided under the CBI, sector growth commenced briskly from 1990 to 1995, averaging 3.1 percent and peaking in 1995 at 6.3 percent. The low (1.7 percent) growth rate in 1998 reflects, in part, the damages to agricultural production caused by Hurricane Mitch, especially in Honduras.

More recently (2001-2006), agricultural growth across the CAFTA-DR region has averaged slightly less (2.9 percent) than the regional growth rate (3.4 percent) in the first half of the 1990s. While 2.9 percent growth is reasonably good, it is strongly influenced by exceptional performance in Costa Rica (2006 at 10.8 percent) and the Dominican Republic (2005-2006 at 7.3 and 9.0 percent, respectively). A comparison of agricultural growth rates from 1990 to 1995 and 2001 to 2006 shows declines from 2.3 percent to 1.7 percent in El Salvador, 3.0 percent to 2.6 percent in Guatemala, and 3.4 percent to 2.1 percent in Nicaragua, while Honduras's growth rate was 3.3 percent in both periods (World Bank 2007; Central Bank of Nicaragua 2007; Central Bank of Costa Rica 2007; Central Bank of El Salvador 2007).

The country reviews explain some aspects of this trend along three interrelated fronts. First, while there was a shift in exports from traditional primary products to non-traditional products, increases in productivity were often insufficient to maintain growth. To cite one example, in El Salvador, while there were 71,000 hectares under NTAE crop production in 1990, by 2002 the land area under NTAE crop production had fallen to 47,000 hectares (Magaña y Prada 2005). Second, generally speaking, the bulk of the arable land and labor force was confined to basic grains production efforts. Third, governments directed limited attention to the new era challenges and opportunities associated with the CBI and globalization.

Referring back to Graph 2.1, the related discussion on structural transformation dynamics, and the conclusions provided from the country-level reviews, insufficient attention has been extended to agricultural diversification in terms of linking the agriculture sector to the industrial and services sectors as a critical intervention to improve rural incomes. All too often, government policymakers in the CAFTA-DR countries, as well as external donors, have tended to undervalue the agricultural sector's potential to contribute to overall GDP growth, to raise wages, and to reduce rural poverty.

Also, the belief has been widespread that, under Structural Adjustment, all sectors would respond appropriately to market forces, and that "getting the policies right" would automatically "raise all boats" without having to target any support to the agricultural sector. These views have continued into the era of globalization with these countries continuing to under-appreciate and under-exploit their comparative advantage (land and labor) and the agricultural sector's potential to generate higher income enterprises through forward and backward linkages with the industrial and services sectors. With countries not putting into place the mix of policies and investments

required for trade liberalization to make agriculture a greater contributor to economic growth, the agricultural sector has continued to be dominated by less remunerative production agriculture, while market opportunities for more remunerative enterprises along agro-industrial and agribusiness value chains have continued to be under-exploited.

The World Bank observed that the primary consequence of the perception of agriculture as a “low-value” sector has been the perpetuation of urban-biased national investment strategies (de Ferranti et al. 2005). The major challenge for the CAFTA-DR countries is to break away from this pervasive pattern and begin making strategic choices and investments that will enhance agriculture’s contribution to trade-led economic growth by linking more of the sector’s output to manufacturing and service activities, and strengthening the participation of the rural poor in the higher returns generated by more remunerative enterprises.

The level and scope of changes in agriculture’s share of GDP can be misleading indicators of its strength and overall contribution to the economy. Because agriculture’s share of GDP includes only value-added in the production of raw products, the figure excludes related value-added productive activities generated through expanded, market-based backward and forward linkages to the industrial and service sectors that require greater skills and facilitate wage and job growth. The most successful agricultural sectors are those that have become well integrated into agribusiness value chains incorporating service and industrial sectors (both the processing of agricultural raw materials and the production of agricultural machinery, equipment, and other inputs) and that are increasingly linked to export markets (Bathrick 1997, World Bank 2004, and World Bank 2006). These factors, which have been key in facilitating the transformation of agriculture in other developing countries, have been slow to be put in place in the CAFTA-DR region.

Chile is a good example in Latin America of the new era potential (see Section 4, as well as Volume II of this study). But perhaps the best example is the United States, where agriculture’s tiny 1.0 percent of GDP (USEOP 2007) and 1.6 percent of employment (USCB 2007) in 2005 greatly understate its economic importance. For example, as presented in a related study of the United States by the Inter-American Institute for Cooperation on Agriculture (IICA), agriculture and associated “agrofood” sub-sectors generated a combined 8.1 percent of GDP in 1997 versus 0.7 percent for primary agricultural production alone (IICA 2004a).

The full impact of agriculture’s economic contribution is illustrated in a number of studies of LAC countries. For example, the IICA review found that this expanded vision of agricultural GDP in the LAC region approached 30 percent of national output, compared to 8 percent for just agricultural production (IICA 2004a).

Agriculture’s Contribution to Employment

In terms of a general model of structural transformation, the decline over time in agriculture’s share of employment is dependent on both *push* and *pull* factors. On the push side, greater productivity increases in agriculture — which tend to be faster than in industry in both developed and developing countries (de Ferranti et al. 2005) — result in more rapid movement of agricultural labor from traditional activities to more remunerative on- and off-farm employment. Labor will be pulled to urban areas as the gap between rural and urban real wages increases;

urban education, health, and other services are perceived to be more available and of better quality than in rural areas; and cities become more dynamic centers of growth and employment opportunities than the countryside.

However, from the country reviews, there is little to demonstrate that economic development in the CAFTA-DR countries has sparked the requisite sectoral shifts to foment more remunerative employment and wage growth. On the *pull* side, the anticipated non-agriculture growth has been slow; and, on the *push* side, sector productivity growth has been slow. This is most visibly noted in the Nicaragua country review where, unlike in any other CAFTA-DR country, sector growth has been based almost exclusively on expanding the arable land base rather than enhancing land productivity, while land productivity actually declined in the coffee and basic grains sub-sectors (FUNIDES 2007).

It is conventional wisdom that as a developing country's economy transforms, the number of workers employed in the industrial sector increases as the number in agriculture decreases. This pattern, however, has generally not been observed in the CAFTA-DR countries. While agriculture's relative share of total employment has continued to decline (UN-ECLAC 2007b),⁵ various empirical studies of these countries have revealed that the number of jobs in agriculture has actually increased in absolute terms. For example, the Institute for International Economics has reported that between 1990 and 2000, except for Costa Rica which showed a slight decline in agricultural sector employment, the agricultural workforce in the other Central American countries increased by 1.5 million (Salazar-Xirinachs and Granados 2004).

Similarly, Kobrisch and Dirven (2007) report that the number of agricultural sector jobs increased in absolute terms in Guatemala, Honduras, and Nicaragua. This trend was also noted in some of the country reviews (Volume II). In Guatemala, job growth in agriculture increased in absolute terms on average by 3.3 percent during the 1990s. "Compared with other sectors, the agricultural sector experienced the highest job growth due to the inability of other sectors to absorb the growing rural population" (ASIES 2006). In Honduras, as reported by Paes de Barros, de Carvalho, and Franco (2006), jobs in the agricultural sector actually increased between 1998 and 2003, but with a 24 percent decline in average wages. In the Dominican Republic, employment in the agricultural sector since 1996 "has steadily increased even as the sector has continued to generate the lowest paying jobs" (SEA 2005).

This trend of increased employment in the agricultural sector of the CAFTA-DR countries (except Costa Rica) is disturbing in a global context because, as the World Bank (2006) notes,

⁵ Supporting this view, for the six countries in the CAFTA-DR region, the unweighted average shares of agricultural employment as a percentage of total employment were 32.7% in 1990, 28.7% in 1995, 26.1% in 2000, and 24.9% in 2005 (note: the El Salvador figure for 1990, not available in the source, was estimated). Agriculture's share of total employment in Guatemala fell sharply from 48.7% in 1990 to 37.6% in 1995; over the next ten years, the decline was much slower, to 36.2% in 2005 (UN-ECLAC 2007b). Labor force statistics, however, often underestimate the rapidity of the employment transition, as many families choose — for whatever reasons — to remain on their farms even as their agricultural incomes decline, forcing them to seek employment in other sectors in an effort to sustain income levels. Others maintain (or even improve) their living standards through remittances from relatives living abroad or in urban areas. Both groups tend to remain classified as employed in agriculture, even though a decreasing share of their income and work effort is agriculturally based.

Central America (except Costa Rica) and the Caribbean comprise the only world sub-region where agriculture has “played an important role in helping absorb surplus labor displaced by the industrial sector.” Indeed, between 1991 and 2003 - 2004, the industrial sector of this region lost jobs at a rate of 0.8 percent, with the increase of employment occurring in the sector (agriculture) with the least remunerative jobs and “unaccompanied by productivity growth (Ibid).”

Simply put, despite increased migration, the generally high commitment of the CAFTA-DR countries to macroeconomic and trade liberalization reforms has not stimulated the industrial and services sectors to expand sufficiently to create enough jobs to “pull” un- and under-employed labor out of the agricultural sector while, concurrently, agricultural sector productivity has been insufficient to serve as a “push” factor, thereby contributing over time to a dampening effect on the rise of wages overall.

C. AGRICULTURE’S CHANGING STRUCTURE AND PRODUCTIVE LINKAGES TO OTHER SECTORS

During the import substitution era — roughly 1960 to 1980 in Central America, but beginning earlier in other Latin American and Caribbean (LAC) countries — policymakers tended to view the primary role of the agricultural sector as the provision of cheap food for urban industrial and service workers. Some governments, pursuing this objective, resorted to export controls (e.g. taxes or prohibitions), imposed controls on retail food prices, and/or had public sector agencies directly involved in commercial transactions. However, all these policies discouraged private sector investment in agricultural production and processing for domestic as well as export markets. Much of the subsidized credit provided under donor-sponsored efforts for agriculture increasingly became a political tool and was diverted to other investments, even to consumption. Further, in most of the region’s countries, major rural-based civil strife and land reforms ensued and, in some countries, exchange rates became overvalued. The accumulation of such developments resulted in under-appreciating and under-investing in rural assets, further distorting resource allocation and discouraging exports.

The gradual replacement of these policies, beginning in the 1980s, by measures encouraging internal and external trade and price liberalization, as well as macroeconomic stabilization, helped initiate a notable shift in the structure of agricultural production away from low-value, high-cost basic grains. In terms of traditionally low commodity prices globally, as well as low productivity on small land units, there were at best only limited cases where countries have succeeded in generating value-added economic multipliers and shifting to high-value export crops. In most countries, however, this trend did not grow at the same levels or at more dynamic rates due to the prevailing shallow productive base and limited competitiveness, affected in part, by the still lingering import substitution structure, with the result that the impact on economic growth and poverty reduction was sub-optimal.

As noted in the country reviews (Volume II), across the region the basic grains sub-sector maintained a predominant position with traditionally low productivity levels. Of Guatemala’s 1.4 million farms, 1.1 million are maize and bean producers. From the mid 1980s to mid 1990s, Guatemala had one of the lowest levels, compared with other LAC countries, of diversification out of the cereals sub-sector to higher-value fruits and vegetables, meats and oils sub sectors (Byrnes and Stovall 1996). Further, compared with worldwide cereal crop yields averaging 1.5

percent growth, the yields of maize, beans, wheat, and sorghum from Guatemalan producers have been flat or even declining (Rodas-Martini 2003). For at least one country (Nicaragua), exports actually contracted. Trade liberalization also generally resulted in an increase in the share of domestic basic grains consumption supplied by imports — at least for yellow corn, rice, and wheat — although other grains continued to benefit from high protective tariffs (note: individual country reviews in Volume II provide some information on trends in grain imports). While the reported commodity price increases are noteworthy, interviews with stakeholders during the country review process revealed that, in spite of basic grains producers having a strong interest to improve their efficiency and competitiveness, the impact of assistance responses of national governments and/or international donors has been less than anticipated..

More recently, as noted in the country reviews, the CAFTA-DR countries are experiencing rapidly changing dynamics relevant to trade-led agricultural diversification. To generalize however, these recent trends have developed from what is a sub-optimal support base. The prevailing support base contrasts notably from the “Trade-led Model” structures employed in Chile and Costa Rica that are described in Section 4 and Volume II. In this context and before describing several regional examples, it is important to note the outcome of USAID’s sustained funding and technical assistance to support the *Coalición Costarricense de Iniciativas para el Desarrollo* (CINDE). CINDE’s non-traditional export unit was charged with stimulating a favorable business, commercial, and investment environment in order to expand production and agro-industrial infrastructure in response to growing market opportunities. The investments and expansion that occurred over time, from an initial low base, and the positive enabling environment that ensued, led to Costa Rica’s almost 200 percent increase in exports between 1984 and 2006.

The recent country developments now observed have been fueled, in part, by the rise of supermarkets and by private sector agribusiness initiatives, including donor-funded non-traditional agricultural export projects aimed at assisting smaller-scale producers. To varying degrees, all countries have conducted market studies indicating high export market potential for numerous product lines. These studies also demonstrate opportunities to accelerate aggregate economic growth through value-added product processing for increasingly specialized export, regional, and domestic markets.

Further, drawing on examples from the country reviews, the following highlights private sector agribusiness initiatives and donor-supported projects demonstrating market (buyer) interest and producer responsiveness to the income-earning potential of the new market opportunities:

- The Dominican Republic has rapidly become a leading global supplier of organic bananas, cacao, coffee, and mangos, with considerable capacity to expand. Responsive to growing but unmet market demands, the USAID-funded Competitiveness and Policy Project has provided technical and business management assistance to help small-scale producers to participate in product-specific “clusters” (mangos, specialty coffee, and oriental vegetables).
- In El Salvador, processed food products are now the second largest industrial sector export. One of many inputs to this expanding product line is USAID’s Agricultural

Diversification Project that provides production and processing technical assistance and market services to 2,000 producers of sweet peppers, tomatoes, chayote, plantains, coffee, and other product lines.

- In Guatemala, now a regional leader in NTAE exports, much of the progress achieved owes to the considerable market, technology, and business development assistance provided by AGEXPRONT, a trade development organization now self-sustaining but initially created with USAID support. Also, in response to the increasing international demand for specialty coffee and through support provided by the Guatemalan National Association of Coffee Growers under a \$100 million program, a technical assistance program on product differentiation and related quality enhancement in production and post harvest practices is now institutionalized. From this considerable effort, 80 percent of the producers are gaining 50 percent higher prices. Under the NGO Fundación Agil, supported by USAID, numerous producers of fruits and vegetables and specialty coffee have observed first hand the price incentives derived from associating under a common business service mechanism that provides direct producer to end-user market service. Through this mechanism participants have introduced a price “check off” system to cover basic costs, thereby ensuring sustainability after project termination.
- In Honduras, after initial USAID support, the now privately-supported Honduran Agricultural Research Foundation (FHIA) is providing key research, training, laboratory, and market advisory services for cucumber, squash, oriental vegetables, pepper, jalapeño, eggplant, and plantain exports.
- In Nicaragua, responding to increased dairy and meat product exports, CENTROLAC is building Central America’s most modern milk plant, while Eskimo is constructing the region’s largest cheese production facility. In response to the opportunities for specialty meat cuts for expanded ethnic markets and Wal-Mart’s regional presence in Mexico, the cattle industry is beginning to expand meat production and advance food safety and butchering technologies.

Such agribusiness initiatives and donor-funded projects to assist smaller-scale producers to take advantage of emerging market opportunities for higher-value crops and value-added products are responding not only to export market demands but also to the rising demand of Central American supermarkets for fresh fruit and vegetables and value-added products. Supermarkets are now the dominant player in most of the agrofood economy of Latin America, having moved from around 10 - 20 percent in 1990 to 50 - 60 percent of the retail sector in 2000 (Berdegúe et al. 2004). As supermarkets increased in number, they increased in size. As a result, while the number of small, independent supermarkets grew by 74 percent from 1994 to 2002, their market share diminished from 40 percent to 36 percent, with many small supermarkets and small shops going out of business.

Further, while supermarkets in Latin America initially served upper-income groups in large cities, from the 1970s to 1980s supermarkets spread to middle- and working-class areas into medium-sized cities and towns, including to poorer countries in Central America. “Across Central America Wal-Mart is now the undisputed market leader through its partnership with

Costa Rican-based retailer CSU and Guatemala-based La Fragua....All their operations in the region are part of the CARHCO joint venture which has more than 253 stores in Central America.” (Balsevich et al 2007). Table 2.1 provides a snapshot of the top supermarkets in Central America.

Table 2.1. Top Supermarket Chains in Central America, 2004

Country	Company	Ownership	No of Stores	Retail Banner Sales 2004 (US\$ mn)	Market Share (%)
Costa Rica	Wal-Mart	Joint venture	99	646	29.2
	Megasuper	Local	62	196	8.9
	Perimercados	Local	19	110	5.0
	Auto Mercado	Local	8	95	4.3
	PriceSmart	USA	3	84	3.8
	Other			1,081	48.9
Guatemala	Wal-Mart	Joint venture	104	586	14.7
	PriceSmart	USA	2	65	1.6
	Other			3,349	83.7
Nicaragua	Wal-Mart	Joint venture	20	83	21.0
	PriceSmart	Joint venture	1	22	5.6
	Other			290	73.5

Source: PlanetRetail and Berdegúé J.A. et al (2004).

The rise of supermarkets in Central America reflects the rapid modernization of the region’s food system. Increasingly supermarkets source their fresh fruits and vegetables from an inter-regional trading network of supply chains. Case studies in Nicaragua, Guatemala, and Costa Rica noted not only the new market opportunities that supermarkets afford small-scale producers, but also the more demanding market requirements they must meet to be able to sell their produce to the supermarket supply chains. In Nicaragua, Hortifruti, a specialist wholesaler and a subsidiary of a major regional supermarket chain (CSU), helped small-scale producers to sell to that chain. By comparison, Guatemalan farmers who supplied salad tomatoes to Hortifruti Nicaragua were less successful: the technical advice provided was insufficient and costs spiraled. Another case study demonstrated that simply providing small-scale growers with access to dynamic markets and grants (e.g., through donor-funded project assistance) is not enough; the researchers found that issues of capacity building and human and social capital strengthening within organizations are equally important to guarantee success, as is flexibility by the buyer while growers build market experience. A fourth case study of a successful venture showed that a well-run small-scale producer association can help growers to access a processor and succeed in getting their value-added product onto supermarket shelves (Balsevich et al 2007).

These examples provide tangible evidence of the challenges that small-scale producers must surmount if they are to succeed in selling to supermarket- and/or export-oriented supply chains. However, the examples also highlight that the progress made to date has been achieved within the context of an overall enabling environment that is not optimally geared to provide incentives or support to help small-scale producers to participate in trade-led agricultural diversification.

While all countries can rightfully claim important accomplishments, in most cases the foundation for generating more robust economic growth through trade-led agricultural diversification is yet weak because of low or declining competitiveness levels; limited installed capacity of the productive base to meet growing demand; limited national support base to help respond to market requirements, enhance competitiveness, and stimulate value-added growth; and basic dependencies on short-term donor funding to ensure the sustainable growth of new era (market-linked) enterprises and expansion of their contributions to economic growth.

On the issue of sustainability, donors are concerned with how assisted countries will continue to support diversification once donor funding that effectively stimulated initial private investment, declines or ends. The contrasting experience under CBI and the Chilean model (see Section 4) demonstrates that, over the long run, diversification will succeed only when both public- and private-sector participants take ownership of these opportunities, facilitate the broader policy and institutional support environment, and ensure that adequate levels of investment are channeled into helping rural enterprises establish and maintain cost-effective, competitive-based links with the growing national, regional, and global markets that are seeking to source high-value products. Since the increased level of national ownership and investment commensurate with the new opportunities has not been forthcoming, progress in transforming agriculture via broader diversification has all too often bypassed many rural households, even slowing and sometimes regressing in recent years.

While Section 4 presents the summary of the Chilean model and Volume II includes the actual country review, the core conclusion of the Chile study developed by Dr. Enrique Roman Gonzalez, cited below, is most relevant to this assessment:

A significant portion of Chile's economic success, especially regarding its forestry and farming development policy, can be attributed to its decisive trade liberalization strategies and the other deregulation measures. These have made its markets and its production factors more functional and more flexible. Even during its most neo-liberal periods, the Chilean state has played a key role as the promoter and regulator of the more dynamic sub-sectors such as fruits, forestry, aquaculture, and agro-industry. The use of instruments to affect demand, of intermediation mechanisms for services that are run by the private sector, and of development services that are provided by non-state entities have been determining factors, not only in providing the initial boost needed to modernize the agricultural sector, but also in ensuring that the benefits reaped are gradually extended to the relatively smaller and weaker segments of the Chilean economy and Chilean society. Most analysts tend to point to the bold and radical steps Chile took in redirecting its trade and exchange rate policies as lying behind the sudden rise in exports the country enjoyed after the signing of the FTA (and despite the revaluation, in real terms, of the peso), but they often forget or underestimate the development policies and instruments that have formed part of Chile's export strategy since the outset.

The development instruments used in Chile, however, constitute an important toolkit to improve the competitiveness of the smaller enterprises. In this respect, one is left wondering why so much attention has been paid to the analysis of the macroeconomic measures underpinning the opening and modernization of the Chilean economy and its

agricultural sector and so little to the actual microeconomic and development instruments that have accompanied the process. Without these multiple instruments, the Chilean development model would lack two of its most attractive features: 1) its capacity to include all segments of society; and 2) its success in the fight against poverty.

An indication of the considerable scope for further shifts in the structure of production is provided by the case of Honduras, where 55 percent of arable cropland and around 50 percent of the agricultural sector workforce is dedicated to maize, sorghum, and bean production. These products, however, generate only 13 percent of the sector's GDP. In contrast, fruits grown on 5 percent of the arable land contribute 20 percent of the sector's GDP. Further, in addition to their labor-intensive cultivation, investment in these crops creates many value-added jobs in processing and marketing (Serna 2007).

While fruit and vegetable exports expanded under the CBI and post-Hurricane Mitch assistance efforts by donor organizations, initial rapid growth was not sustained across a broad range of commodities. For example, melon exports, after rising from US\$7 million in 1990 to US\$45 million in 1998, fell to only US\$32 million annually during 1999 - 2006. Pineapple exports, after reaching an average of US\$21 million in 1992 - 1995, fell to US\$11 million during 1999 - 2001, before recovering their earlier level. On the other hand, exports of some processed products rose fairly steadily between 1990 and 2006 (e.g., cultivated shrimp, from US\$7 million to US\$178 million, and palm oil from US\$2 million to US\$66 million) (BCH 2007). In contrast, El Salvador's exports of fruits and vegetables grew from US\$28 million in 1989 to US\$239 million in 2003 (Magaña and Prada 2005).

Unfortunately, few comparative studies have been conducted to link trade opportunities, policy reforms, and investments in support of agricultural diversification with national economic growth. One study, prepared for the International Food Policy Research Institute (IFPRI), tracked these links and contrasts global performance during the key time periods of 1980 - 1990 (the transition from the import substitution era) and 1990-1995 (the first phase of the new market era). For the eleven countries having the highest degree of macroeconomic policy reforms (Argentina, Bangladesh, Benin, Bolivia, Chile, Costa Rica, Indonesia, Philippines, Thailand, Uganda, and Uruguay), agriculture had become a leading, if not the lead, economic sector; exports of commodities and services had expanded; and, most importantly, GDP growth had improved notably. Specifically, agricultural sector growth between 1980 - 1990 and 1990 - 1995 was more than twice as rapid as the average for all developing countries, while export growth was almost three times as fast, and GDP growth was more than 3½ times as fast (Bathrick 1998).

Another study, covering the period from the mid-1980s to the mid-1990s, found that the LAC countries making an early transition from cereals to higher-value meat, fruits, vegetables, and oils experienced more robust agricultural sector trade expansion and economic growth than their neighbors. Moreover, those with the largest annual GDP increases were the most agriculturally diverse (Bathrick, Byrnes, and Stovall 1996). Similarly, a study conducted in Argentina, Chile, Colombia, Mexico, and Uruguay found that a 10 percent growth in the fruit, vegetable, and nut sub-sectors produced a fourfold increase in total economic output through backward and forward linkage with the industrial and services sectors (IICA 2004a). As trade diversification requires

access to improved technologies, it stimulates economic linkages across various sectors and sub-sectors (Narayanan and Gulati 2002).

In summary, the structure of agriculture in the CAFTA-DR countries has changed considerably since the early 1980s, as the economic importance of traditional exports and basic grains has declined relative to high-value fruits and vegetables and value-added products such as specialty coffee, farmed fish and shrimp, and canned and processed ethnic goods that, through backward and forward linkages with the industrial and services sectors, generate significant employment in both rural and urban areas. This transition has been accomplished largely through donor-initiated projects and some private sector initiatives. While trade liberalization and generally more favorable macroeconomic environments have provided initial incentives to shift to new products, most CAFTA-DR stakeholders — at all levels — have been slow to respond in terms of making the right “second generation” policy and investments choices to create and strengthen the required enabling environment for trade-led agricultural diversification to proceed more robustly. Section 5 provides a suggested framework for establishing the necessary enabling environment and facilitating structure for trade-led agricultural diversification.

D. TRADE-LED AGRICULTURAL DIVERSIFICATION AND POVERTY REDUCTION

Rural poverty is associated with a variety of factors, including lack of access to productive assets (notably land, labor skills, and credit); lack of, and poor quality of, social services (especially education and health); and limited availability of economic infrastructure (roads, electric power, telecommunications, and irrigation systems). High poverty and underemployment levels in rural areas, and the disappointing performance of the industrial sector as a generator of employment, even when it was protected during the import substitution era, have hindered wage growth and exacerbated societal problems. At the same time, all country reviews for this study revealed ever-declining farm gate prices over a considerable period (except the last few years) and increased levels of sector employment, even though this growth may be comprised of increasingly lower wages and underemployment, generating further wage-dampening effects. All countries also revealed increased internal and external migration, urban violence, and illicit drug activities, as well as environmental degradation.

In the context of country-level poverty dynamics and the agricultural commodity price hikes, the strategic importance – and need for – trade-led agricultural diversification requires serious reflection and focused action. Currently, worldwide, both urban and rural poor in selected developing countries spend between 50 percent and 70 percent of their income on food (Ahmed, *et al.* 2007). According to the IFPRI, maize prices are projected to rise between 26 percent to 72 percent by 2020 (IFPRI 2008). Given the preponderance of maize consumption for national diets and predominant production base in small farm units in the CAFTA-DR countries, gains for some small producers are certain at least in the short term.

However, it is important to recognize that much of the region is comprised of “net food consumers” and particularly so at the farm level. Somewhat surprisingly, “net food producers” form only a small proportion of the farm enterprises and thus the notable price increases will have less positive impacts on producer wellbeing than one might at first expect. As discussed in Section 3, a World Bank study in El Salvador, Guatemala, and Nicaragua estimated the impact on consumption due to price shifts under CAFTA-DR from tariff reductions of eight “sensitive

products.” The study revealed that the percentage of farm units that are net food producers is relatively small – only 10 percent in Nicaragua, 12 percent in Guatemala), and 32 percent in El Salvador. Further, within this group, five to nine percent would experience welfare losses as tariffs are reduced under CAFTA-DR (Jaramillo and Lederman 2006). These observations reveal extremely important short and medium-term economic realities and consequences such that for most of the urban and rural population, strategies to intensify job and wage growth become more urgent.

Rural households in Latin America and the Caribbean have increasingly relied on off-farm employment activities in addition to on-farm production to mitigate poverty and ensure food security. A major rural household survey of the LAC region found that more than 40 percent of total household income came from off-farm sources in nine of the twelve countries studied, and more than 50 percent in six countries (Reardon, Berdegue, and Escobar 2001). These other income sources include wages and salaries from agricultural and non-agricultural work, remittances, and direct government transfers, which in the case of the CAFTA-DR countries, reflected notable increases in all categories. As shown in Table 2.2 on the next page, shifts in the composition of rural household income were particularly striking in El Salvador between 1995 and 2001. Recent household data surveys, reflecting the responses to current price dynamics and/or comparisons with baselines, were not available.

While these diverse ranges of additional sources of income helped contribute to the reduction in rural poverty and indigence rates generally evident in the CAFTA-DR countries, the incidence of poverty in the rural sector is higher than in the urban areas and is still significant, except for Costa Rica. As reported by UN-ECLAC, and shown in Annex C, Tables C.1 and C.2, the most recent incidence of rural poverty as a percentage of total population by country revealed: Costa Rica in 2005 with 22.7 percent; Dominican Republic in 2005 with 51.4 percent; El Salvador in 2004 with 56.8 percent; Guatemala in 2002 with 68 percent; Nicaragua in 2001 with 77 percent; and Honduras in 2003 with 84.8 percent. At the same time, other data sources indicate that the incidence of rural poverty in some CAFTA-DR countries may be higher and/or rising — for example, as reported in the country reviews (Volume II), the UNDP concluded that poverty in El Salvador had been underestimated in 2004, while the World Bank concluded that poverty in Honduras may have actually risen between 2000 and 2003.

That agricultural diversification is essential is apparent. The recent UN-ECLAC study on LAC off-farm employment concludes that national strategies to increase employment must embrace the fundamental importance of agriculture as a direct and indirect generator of rural employment (Köbrich and Dirven 2007). Yet CAFTA-DR countries have not placed a high priority on strengthening their agricultural sectors. The examples of Costa Rica, Chile, and other countries highlight the great potential that market-linked agricultural development contributes to reducing poverty, especially in rural areas.

However, while all CAFTA-DR countries place the highest priority on expanding agribusiness and agroindustrial activities, substantive responses to the degree required have not been observed. Yet, a recent study conducted by a team of World Bank economists concluded that “relative to its size, agricultural growth in Latin America tends to be more pro-poor than overall growth in nonagricultural sectors” (Perry et al. 2006). Agriculture has the highest sectoral

elasticity of poverty reduction with respect to economic growth, a finding that is related to the labor-intensive nature of its production (Perry et al. 2006).

Table 2.2. El Salvador: Sources of Rural Household Income, 1995-2001

Source	Percent of Total Income				Percent of Self-generated Income*			
	1995	1997	1999	2001	1995	1997	1999	2001
Agriculture	44.03	35.88	28.88	26.46	48.57	39.77	33.81	32.43
Family production	17.23	18.81	17.66	16.96	19.01	20.86	20.68	20.79
Wages and salaries	23.55	16.58	10.96	9.25	25.97	18.38	12.83	11.34
Other	3.25	0.49	0.26	0.25	3.59	0.54	0.30	0.30
Off-Farm Activities	46.63	54.34	56.54	55.13	51.43	60.23	66.19	67.57
Business activities	4.08	14.33	20.74	20.49	4.50	15.88	24.29	25.11
Wages and salaries	40.92	38.52	34.28	32.23	45.13	42.70	40.13	39.50
Other	1.64	1.49	1.51	2.41	1.81	1.65	1.77	2.95
Remittances	8.26	9.00	13.48	16.22				
Originating outside El Salvador	6.23	7.12	11.06	13.21				
Originating within El Salvador	2.03	1.88	2.42	3.01				
Migrants in El Salvador	1.26	1.34	0.98	0.90				
Non-migrants	0.77	0.54	1.44	2.11				
Subsidies	1.08	0.78	1.11	2.19				

*Excluding remittances, family assistance, and subsidies

Source: Beneke de Sanfeliú and Shi (2004)

Fruit and vegetable production and harvesting activities tend to be especially labor-intensive. A comparison of labor requirements for fruit and cereal production systems found that fruit required 220 more workdays per hectare per year than cereals for seed and seedling production, precision land preparation, irrigation, harvesting, cleaning, and grading (Barghouti, et al. 2004). In addition, fruit processing had more off-farm linkages than cereals, creating more employment opportunities for unskilled workers, as well as higher wage job in related services, than cereal processing.

In Costa Rica, over time, labor, technology, and capital were allocated with a view to tapping into high-value export markets for specialty coffee, dairy, pineapple and other product lines. This played an important role in helping Costa Rica's economy to recover from the debt crisis of the early 1980s and made significant contributions to poverty reduction (Morley 1995). Agricultural production — two-thirds of which was in export commodities — was stimulated by macroeconomic policy reforms, notably a depreciation of the real exchange rate of 40 percent between 1980 and 1982 and another 20 percent over the rest of the decade (Morley 1995). Exports of both traditional and nontraditional products grew rapidly, and real wages in agriculture rose over the decade (Morley 1995). Various poverty data series show significant reductions in poverty between the early 1980s and 1990 (Morley 2005).

An overview developed by Narayanan and Gulati (2002) for IFPRI and the World Bank highlights a number of capital- and knowledge-intensive developments underway in the LAC region that highlight the pivotal effect on economic growth that trade-led agricultural

diversification can stimulate through backward and forward linkages with the industrial and services sectors:

“Agriculture has become a hi-tech industry for some time (Josling 1999). Already biotechnology advances dramatically affect farm input industries (e.g. seeds and chemicals) and, increasingly, the distribution channels from farm to table (information technology, packaging, processing, storing, transport, labeling, advertising, etc.). Downstream technological improvements in transport, storage (e.g. chemical applications to reduce fungus formation), and packaging have produced capital-intensive agro-industrial growth in the wholesaling and retailing sectors. Such advances have triggered the growth of agrofood sectors such as apples and pears in central Chile, vacuum-packed milk in Brazil, and shrimp in Ecuador (Reardon and Barrett 2000). Upstream use of sophisticated equipment that improves product quality, reduces labor demand, and ensures consistency in quality has expanded significantly. When such developments are taking place, the implications for small farmers need to be understood and appropriate policy responses adopted to mitigate negative effects on rural poverty (Narayanan and Gulati 2002).”

The poorest small farmers are generally in a weak position to benefit from free trade (Berg and Krueger 2003), since they are usually involved in the least competitive and efficient activities (in terms of products, quality, and technology) and are inappropriately linked due to economy of scale and market realities associated with more dynamic agribusiness value chains. At the same time, as illustrated by examples presented in the country reviews (Volume II), with appropriately targeted assistance small farm enterprises can provide cost-effective crop management to meet increasingly demanding markets (e.g., food safety and food quality requirements).

In the scenario now emerging, while a relatively small group of these producers become short-term “winners,” a significant majority are at risk that they will need to seek other remunerative employment. However, given the improved profit margins possible when small-scale farmers shift into higher-value crops and/or value-added enterprises, there is potential for a greater number of farmers to prosper if they can shift from traditional crops (e.g., basic grains) into higher-valued enterprises (e.g., fruits and vegetables) that are competitively and sustainably linked to market-driven supply chains that provide off-farm employment. If appropriately supported, small-scale producers gaining from the sale of now higher-value basic grains could use this “windfall” opportunity as a support “cushion” to help finance investments required for enterprise diversification, especially if they can be assisted by the critical support elements described in Section 5. Given the large number of net food consumers, there is an even more urgent need for the transformation (diversification) process to address the numerous negative legacies and impediments. As discussed below, this will require considerable attention if countries are to more productively mobilize their land and labor resources so as to increase jobs, raise incomes, and reduce poverty.

Finally, it is appropriate to recall that poor consumers tend to benefit from trade liberalization through lower prices on imported foods as well as from jobs generated by the value chains created by expanding exports. The earlier trade protection era, by contrast, usually exhibited an anti-agricultural bias, as economic policies turned the internal terms of trade against agriculture.

E. OBSTACLES TO AGRICULTURAL GROWTH AND RURAL DEVELOPMENT

Agricultural growth and broader rural development in the CAFTA-DR countries have been constrained by a number of factors, some dating from the 1960s and others of more recent origin. This section briefly examines a number of areas in which major obstacles to rapid growth in agricultural diversification and broader rural development have been evident. Additional, sector-specific challenges and issues are provided in a more strategic framework in Section 5.

1. Declining Terms of Trade

- a. **External.** Real farm gate prices have declined steeply since the early 1970s because of the notable productivity enhancement effects generated by the Green Revolution, other sources of increased productivity, and greater competition (OECD 2006). Real prices of the eleven traditional products listed in Table 2.3 declined by an unweighted average of 62 percent between 1971 and 2002. All of these crops or products are produced in varying degrees by CAFTA-DR countries (Nogués 2007). Commodity prices have risen since 2002, due to strong demand in China and new sources of demand such as ethanol production, contributing to several solid years of economic growth in the region. .

Years of declining real price trends for agricultural commodities have had mixed effects in the CAFTA-DR countries. While price declines have contributed to reducing food prices for consumers in both rural and urban areas, the declines also translated into long-term reduced wages for farmers and farm workers. Further complicating this situation are the very limited productivity gains observed in the region. These factors have made the traditional export products in Table 2.3 far less profitable. They have also made competition with imports more difficult for producers of domestically consumed crops.

Table 2.3. Fall in Real Prices of Selected Agricultural Products (1971-1973 to 2002)

Product	Real Prices ^a (US\$)a		Change (%) ^b
	1971-1973 Average	2002	
Beef	195.0	143.0 ^b	-27
Tobacco	3,975.0	2,290.0	-42
Tea	159.0	86.0	-46
Wheat	7.3	2.8	-62
Sorghum	245.0	85.0	-65
Corn	5.5	1.7	-69
Animal Fat	160.0	48.0	-70
Cotton	158.0	39.0	-76
Rice	685.0	161.0	-77
Sugar	25.3	5.7	-78
Coffee	188.0	40.0	-79

Source: FAO 2004 in Nogués 2007

Note: International prices deflated by the U.S. Consumer Price Index (CPI) (1995=1).

^a Prices are in U.S. Dollars and represent, for beef, cents per pound; tobacco, dollars per ton; tea, cents per kilo; wheat, dollars per bushel; sorghum, dollars per ton; corn, dollars per bushel; animal fat, cents per 100 pounds; cotton, cents per pound; rice, dollars per ton; sugar, cents per pound; and coffee, cents per pound.

^b 2001 prices.

- b. Internal.** The dominance of import substitution policies in the two decades following the establishment of the Central American Common Market (CACM) in 1960 contributed to strong growth in the urban-based manufacturing sector, whose generally inefficient production was directed mainly to the small, protected national and regional markets. Countries sustained this model through overvalued exchange rates, price controls, tariff and non-tariff barriers against imports of finished goods, and a variety of subsidies. At the same time, retail prices of many domestic food products were controlled in an effort to keep them low for urban industrial workers, while producers were compensated through subsidized credit and other services. In many instances, government or parastatal agencies, often with donor assistance, controlled industrial, utility, banking, and (particularly) agricultural services, including those related to input supply, product marketing, and distribution systems. Subsidized credit was provided through state-owned banks to agricultural producers, but most of it went to large farmers and much was diverted to (more profitable) non-agricultural production or even to consumption. Efforts to assist farmers were often linked to “national” production programs that did little to enhance international competitiveness.

This combination of policies and support structures tended to turn the internal terms of trade against agriculture, discourage private investment in the sector, and do little to improve competitiveness. A comprehensive assessment of 18 countries concluded that, in the absence of such interventions, relative producer prices for 26 commodities would have increased by 42 percent (Bautista and Valdés 1993). Agriculture’s relative decline was hastened by these market-distorting policies and inappropriate institutional base.

2. Macroeconomic, Trade Policy, and Other Economic Reforms: Limited Impact

Sharply declining per capita GDP in the face of the debt crisis of the early 1980s eventually led the Central American countries to begin abandoning — at different speeds — the import substitution model. Costa Rica began its reforms in late 1982 and was followed by Guatemala in 1986, El Salvador in 1989, Honduras in 1990, and Nicaragua in 1991 (Zuvekas 2000). The Dominican Republic commenced its reform process in 1990. The policy focus began to shift to export-led economic growth, based on macroeconomic stabilization and market-liberalizing reforms that were expected to create jobs and reduce poverty by directing resources to labor-intensive endeavors based on comparative advantage, both within and outside the agricultural sector. The World Bank and USAID through large structural adjustment loans and grants, respectively, and the IMF through balance-of-payments assistance, supported policy reforms such as currency devaluations, privatization of state-owned enterprises, fiscal discipline, monetary and credit restraint, and trade liberalization. The Inter-American Development Bank (IDB) was another major actor supporting these reforms.

Macroeconomic policy reforms often were implemented incompletely or were not sufficient in and of themselves to address the limited “market responsiveness” capacities of the agricultural sector. Further, the so-called “second generation” reforms, including institutional strengthening and restructuring and legal and regulatory reforms that were to complement the macroeconomic policy reforms, proceeded at a slow pace or were not addressed. Although the economic paradigm has shifted, the early era sector-support mechanisms and related vested interest support

base have generally shown limited capacities to introduce the requisite reforms now deemed critical to stimulate broader impacts. As a result, economic recovery has been slow in most of the CAFTA-DR countries. While these countries have experienced increased trade and economic growth in the last few years due to favorable world prices for primary exports and a generally booming world economy, growth in GDP, agricultural sector GDP, and trade in percentage terms are lower than the high levels recorded in the mid-1990s.

3. Weak Institutions

For a variety of reasons, fiscal adjustment in the CAFTA-DR countries emphasized expenditure reduction more than tax increases, without adequate analysis of what would be required for the countries to most fully benefit from the new emerging economic paradigm. Accordingly, sharp cuts were made to many governmental services. Traditional public good agricultural services particularly important to small and medium-sized producers — such as extension and related research and development activities — were reduced and many activities and services were eliminated. Further, where the public sector had been heavily engaged in providing input supply, marketing, and credit, the private sector was cautious to enter these areas, even as public sector provision of these services was being cut. The result is that the private sector is still not providing these services in most countries. Consequently, the requisite support capacity for small farmers to better respond to higher risk, market opportunities essential to catalyze economic growth and reduce poverty has not been sufficient.

Moreover, agricultural ministries have had reduced technical capacities and political influence for confronting new challenges and opportunities. Table 2.4 shows that public spending on agriculture as a percentage of total government spending declined sharply in most of the CAFTA-DR countries between 1980 and 2000.

Table 2.4. Government Spending on Agriculture as a Percentage of Total Public Spending (1980-2000)

	1980	1985	1990	1992	1995	1996	1997	1998	1999	2000
Costa Rica	3.40	3.70	4.10		3.20	1.17	1.73	1.56	1.61	
El Salvador	5.80	3.30	5.40		1.70	1.10	1.30	0.97	0.83	0.91
Guatemala	7.90	3.20	4.20		1.38	1.11	1.61	1.84	1.35	
Nicaragua				4.00	8.00	5.00	8.42	7.41	9.14	5.69
Dominican Republic	14.30	7.61	14.50		4.70	4.29	4.83	5.40	5.31	4.62

Source: Kerrigan 2001 in Piñeiro 2007.

Note: Honduras is not included in the original data.

During this period of decline in public sector support to agriculture, bilateral and multilateral aid agencies also reduced support to public agencies while some innovative private sector activities were introduced and supported. It was anticipated that private sector technology providers would be positioned to respond to the expanded support needs that market-oriented producers would require. However, the private sector institutions that were created or expanded with donor assistance collectively proved inadequate to provide the institutional support that the agricultural sector needed in order to respond robustly to the market opportunities created by trade liberalization. There have been a few cases of successful private sector-based institutional

support, including the Honduran Foundation for Agricultural Research (FHIA) and AGEXPORT in Guatemala. Overall, these isolated successes have been too few and far between, leaving the CAFTA-DR country rural sectors largely devoid of appropriate support capacities required to help the region's small farmers make the shift out of basic grains crops into more competitive and market-driven higher-value crops and enterprises. The consequences of this erosion of critical public sector support, and the failure of adequate private sector services to emerge, are presented on a country-by-country basis in the individual country reviews (Volume II).

4. Infrastructure Deficiencies

The fiscal adjustment measures undertaken by the CAFTA-DR countries in response to the economic crisis of the 1980s generally included sharp cutbacks in capital expenditures, including those for infrastructure (roads, energy, telecommunications, irrigation, potable water, and sanitation) needed to support internationally competitive agricultural production, processing, and marketing. Later, external debt reduction programs, especially those for Honduras and Nicaragua under the Heavily Indebted Poor Countries (HIPC) initiative, placed limits on governments' abilities to acquire new debt to finance investments in infrastructure. Private investment offset part of the reduction in public investment, especially where public utilities and other enterprises were privatized, but many agricultural areas remain poorly served by infrastructure. Some of these deficiencies are now beginning to be addressed through grants to Honduras, Nicaragua, and El Salvador made by the Millennium Challenge Corporation.

5. Human Capital Limitations

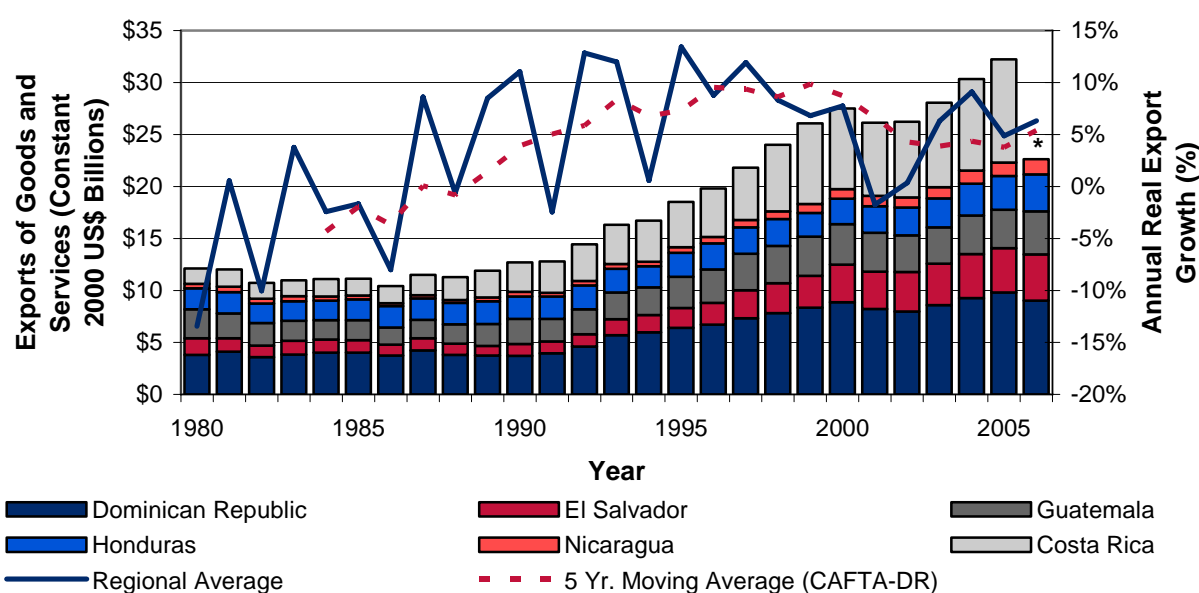
The poor state of the educational systems in the CAFTA-DR countries has been made clear in a series of studies and "report cards" issued by the Task Force on Education Reform in Central America of the Partnership for Educational Revitalization in the Americas (PREAL). The most recent report card notes that, despite recent improvements, the region (including the Dominican Republic) still receives grades of "poor" or "very poor" in five of nine basic performance categories. Poor grades were assigned for test scores, staying in school, and improvements in primary/secondary education and the teaching profession. The region was rated very poor in addressing equity issues, including wide educational discrepancies between urban and rural areas (PREAL 2007). Low levels of basic education limit farmers' abilities to take advantage of opportunities offered by trade liberalization under CAFTA-DR and other free trade agreements. Central America and the Dominican Republic also suffer from a shortage of skilled human resources in a variety of agricultural fields, a reflection in part of the dismantling or weakening of public sector research and extension programs since the 1980s and the inattention to appropriate re-engineering. Private programs have made up some, but not all, of these losses. Generally speaking, technology transfer, especially to small farmers of basic and non-basic grain products, remains inadequate for reaching desired levels of competitiveness. Due to the long lead-time to improve this basic service, specialized "non-formal" and vocational training approaches proposed in Section 5 will have to be introduced.

SECTION 3. EXPORT AND TRADE OPPORTUNITIES SINCE THE EARLY 1980S

A. INTRODUCTION

This section reviews CAFTA-DR country efforts to expand exports. The Caribbean Basin Initiative, the Uruguay Round, the World Trade Organization, and the CAFTA-DR Agreement are discussed with regard to anticipated effects and other market possibilities.

Graph 3.1. Real Exports of Goods and Services and Annual Real Export Growth with 5-Year Trend Line, CAFTA-DR Countries (1980 – 2006)



*Data for Costa Rica in 2006 is unavailable in constant 2000 US\$.
Source: World Bank 2007.

Graph 3.1 tracks overall unweighted regional averages for annual growth in the CAFTA-DR countries since 1980 as well as country-level total exports.⁶

⁶ Annual export totals for the region are distorted by country differences in the treatment of *maquila* (assembly) exports, for which the local value-added percentage, on average, is significantly lower than that of other exports. Until international balance-of-payments accounting standards were changed in the 1990s, only the value-added by *maquila* operations was counted (as an export of services rather than an export of goods). Under the new standards, the full value of *maquila* exports is counted as an export of goods. While some countries continued to use the old standards—e.g., Honduras until it adopted the new standards in late 2007—others such as Costa Rica and the Dominican Republic have been using the new standards for a number of years, and the switch from one standard to the other resulted in a significant upward bias to the export growth rate in the year in which it occurred. For example, in the Dominican Republic, local expenditures in the free trade zones (largely value-added in *maquila* operations) rose from \$82 million in 1986, the first year for which data are available, to \$401 million in 1993, the first year for which the full value of free zone exports (\$2,609 million) came to be included as an export of goods. The sharp “increase” in the Dominican Republic’s exports in 1993 is thus a statistical artifact rather than a real phenomenon. (Export data for the Dominican Republic are from BCR 2007 and unpublished data provided by USAID/Dominican Republic.)

Beginning in 1982, the CBI served as the initial stimulus to expand exports to the United States. Exports started up slowly, initially with great volatility, generally driven by price fluctuations for traditional agricultural products, with growth expanding and peaking at about 13 percent in 1995, and subsequently declining to around 6 percent, less than the composite 10 percent average for the LAC region. Growth became less volatile as traditional products were increasingly replaced by *maquila* and NTAEs that also subsequently faced competitiveness challenges.

The evolution of the *maquila* industry generates lessons learned related to the competitiveness challenges that agricultural diversification must also confront. The *maquila* industry was once envisioned as a major catalyst for new jobs and economic growth in the CAFTA-DR region. Initially the largest non-traditional growth engine under the CBI, it gradually lost momentum due to its heavy dependence on apparel. By the time the Multi-Fiber Agreement expired on January 1, 2005, most countries in the region had failed to provide the labor force skills required for the industry to move up-market, and all CAFTA-DR countries except late-starting Nicaragua have lost market shares since 1999. As shown in Table 3.1 and as discussed in greater detail in Volume II, the region's share of U.S. textile imports fell from 11.4 percent in 1999 to 6.7 percent in 2006, while India's share rose from 4.0 percent to 5.1 percent and China's skyrocketed from 7.1 percent to 35.7 percent. The ability of *maquila* production to absorb underemployed labor, especially from rural areas in the CAFTA-DR countries, has thus been significantly weakened. What this shows is that most CAFTA-DR countries, except Nicaragua and Costa Rica, have not adequately addressed these competitiveness challenges in the *maquila* sector, with the result that exports have not significantly expanded over the past five years.

Table 3.1. U.S. General Imports of Textiles from CAFTA-DR and Selected Other Countries, by Country and Region, 1999-2006 (Percent of Total)

Country	1999	2000	2001	2002	2003	2004	2005	2006
Costa Rica	1.29	1.14	1.12	0.98	0.84	0.71	0.60	0.59
Dominican Republic	3.15	2.61	2.36	1.94	1.80	1.65	1.43	1.13
El Salvador	2.24	2.30	2.34	2.13	2.12	1.91	1.76	1.43
Guatemala	1.16	1.19	1.30	1.18	1.15	1.17	1.02	0.89
Honduras	3.35	3.18	3.15	2.87	2.76	2.58	2.48	2.19
Nicaragua	0.24	0.27	0.30	0.31	0.36	0.38	0.40	0.48
CAFTA-DR - Total	11.43	10.69	10.56	9.42	9.02	8.39	7.70	6.71
CBI - Total	12.48	11.53	11.29	10.00	9.58	8.88	8.20	7.28
Selected Other Countries								
Mexico	14.48	14.44	13.07	11.32	9.30	8.74	7.64	6.57
China	7.11	6.75	6.74	12.96	19.63	24.85	32.97	35.69
Canada	9.91	9.75	9.96	8.85	7.84	6.97	5.92	4.68
Hong Kong	3.56	3.42	3.33	2.51	2.11	1.84	1.42	1.17
India	4.02	3.80	3.81	4.03	3.94	4.08	4.59	5.09
Korea, South	4.27	3.99	4.22	5.31	4.97	4.90	3.99	4.10
Bangladesh	3.18	3.44	3.56	3.00	2.63	2.36	2.58	2.87

Source: USDOC-OTEXA 2007.

B. THE CARIBBEAN BASIN INITIATIVE

In the 1980s, under the so-called Caribbean Basin Initiative, the Administration of U.S. President Ronald Reagan pioneered efforts to promote economic revitalization and facilitate expansion of economic opportunities in the countries of the Caribbean Basin. The Caribbean Basin Economic Recovery Act (CBERA), enacted into law in January 1984, granted duty free access to the U.S. market for a large number of products to 24 countries in the Caribbean Basin region — including all the countries now party to CAFTA-DR. A few sensitive agricultural products, notably sugar, were excluded. The CBI was an “expression of the belief that removing barriers to trade and investment is the surest way to raise income and enhance growth prospects in developing countries” (Morley 2006).

Subsequent amendments to the CBERA expanded the products covered. In 1986, textiles and apparel, not initially given tariff-free access, were allowed to enter the U.S. market with no duty on the value of inputs made from thread or cloth produced in the United States. This provision served as a major catalyst to the *maquila* (assembly) industry, which began to expand rapidly in Central America and the Dominican Republic through the 1990s but more recently has lost dynamism. In 2000, the CBERA was amended as the Caribbean Basin Trade Preferences Act (CBTPA), with the product listing being further expanded to include all apparel, leather goods, footwear, canned tuna, petroleum products, and watches — products that Mexico had been exporting to the United States under the tariff reduction/elimination provisions of NAFTA.

Although the CBI was a unilateral initiative on the part of the United States, the Central American countries introduced bold tariff reductions in the late 1980s (see Table 3.2). By the mid 1990s, their average tariffs were the lowest in the LAC region (World Bank 2005b). Nevertheless, some producer groups and their supporters successfully lobbied to maintain protective tariffs on sensitive products such as maize, poultry, meat, rice, sugar, and dairy products (Monge, Loria and González-Vega 2003).

Table 3.2. Average Tariffs for Central American Countries, 1985-2000 (Percent)

Country	1985	1990	1995	1999-2000 Weighted	1999-2000 unweighted
Costa Rica	53.0	16.4	11.2	3.3	6.0
El Salvador	23.0	16.0	10.2	5.7	7.0
Guatemala	50.0	16.0	12.0	7.6	6.9
Honduras	n.a.	41.9 ^a	9.7	8.1	6.5
Nicaragua	54.0	8.0	10.7	10.9	5.1
Average^c	45.0^b	14.1	10.8	7.1	6.3

Source: Lora 2001; IDB 2002; Jaramillo and Lederman 2006.

^a Data are for 1989.

^b Excluding Honduras.

^c Un-weighted for 1985, 1990, and 1995.

As a result of these efforts, between 1990 and 2000 trade flows (also known as “trade openness,” defined as exports plus imports as a share of GDP) improved considerably in the LAC region. Whereas in the early 1990s trade volumes in percentage terms for Central America and Mexico were somewhat lower than for other LAC countries, by the early 2000s Central America and Mexico led the region in trade volume growth (World Bank 2005b).

While the CBTPA granted the Caribbean Basin countries preferential access to the U.S. market, the U.S. Congress could alter it at any time or even not renew it. Further, the CBTPA (even as amended) never provided full market access, since the legislation did not include sensitive agricultural products. Nor did CBTPA address other obstacles such as non-tariff barriers to imports of agricultural products (e.g., sanitary and phytosanitary measures and other standards, labeling, and complex rules of origin for textiles and other sectors) (Monge, Loria, and González-Vega 2003). Nonetheless, CAFTA-DR country exports to the United States, including nontraditional agricultural exports, initially experienced significant growth. Meanwhile, U.S. exports to the region grew every year after 1985, and the United States enjoyed a notable trade surplus with the region. The positive experience with the CBTPA laid the groundwork for negotiating and launching CAFTA-DR as discussed below and in the individual country reviews in Volume II. As emphasized throughout, the CBI provided valuable insights into opportunities and challenges for agricultural and broader rural diversification under CAFTA-DR.

Increased demand for fresh and processed foods by supermarkets (both local and abroad), as well as ethnic markets and changing culinary tastes in general, has allowed fruits and vegetables to play an important role in NTAE growth. Table 3.3 below presents trends in market shares for the top ten fresh or processed product categories (totaling 21 separate products) imported by the United States from the CAFTA-DR countries between 2000 and 2006. While market shares have increased significantly for seven products, and modestly for four others, losses are evident for eight product areas, while two categories show no clear trend. Similarly, great variation in productivity levels and export sales over time was observed in the country reviews (see Volume II), indicating potential but also sub-optimal response capacities.

The data presented in Table 3.3 illustrate that, faced with competition from producers in other countries, the CAFTA-DR countries need to become more competitive to avoid further loss of market shares and to increase the number of products in which they are sustaining or increasing market shares. In addition, another “big ticket” export product showing declining market share to the U.S. is the *maquila* sector.

C. THE URUGUAY ROUND OF THE WORLD TRADE ORGANIZATION

In 1994, the Uruguay Round of trade negotiations completed a watershed breakthrough that provided for: 1) an average tariff cut of 43 percent on all tropical products; 2) reduction of domestic production support measures in developed and developing countries; and 3) clarification and reduction of export subsidies (Safodi and Laird 1996). This breakthrough sparked a large expansion of regional, sub-regional, and bilateral trade agreements. As of December 2006, the GATT/WTO reported 367 Regional Trade Agreement (RTA) notifications since 1948, of which 214 were in force (Fiorentino et al. 2007). In Latin America and the Caribbean, four sub-regional agreements, 51 intra-regional agreements, and 17 extra-regional agreements were in force in May 2006 (UN-ECLAC 2006a). However, as described in Section 2 and the country reviews in Volume II, import substitution-based economic superstructures for agriculture in these countries have not been fully dismantled and related “protectionist” and rent-seeker interests still exert notable influence. As a result, the requisite competitive-based reengineering and upgrading of trade-related support services essential for the agriculture sector to diversify, contribute to economic growth, and help reduce poverty have advanced very slowly.

**Table 3.3. CAFTA-DR Countries' Share of U.S. Worldwide Imports
(Percent of Annual Total Customs Value)**

Product	2000	2001	2002	2003	2004	2005	2006
Flowers – Fresh Cut	4.34	3.54	3.76	3.74	3.41	4.28	4.93
Flowers – Processed	1.40	0.54	1.77	0.55	3.83	2.38	1.98
Ornamental Plants – Fresh	10.64	7.85	6.04	8.65	9.01	11.48	11.48
Ornamental Plants – Processed	0.59	0.87	0.44	0.79	0.67	0.76	0.45
Onions – Fresh	0.58	0.70	0.55	0.76	0.47	0.45	0.97
Onions – Processed	1.11	0.38	0.07	0.30	0.27	0.28	0.31
Cauliflower and Headed Broccoli – Fresh	0.97	0.00	0.00	0.00	0.25	0.77	0.00
Peas – Fresh or Chilled	30.03	36.32	32.40	40.81	41.77	45.45	46.90
Peas – Processed	18.97	9.81	8.62	4.43	5.41	6.16	7.12
Okra – Fresh	2.31	2.44	4.79	19.38	31.93	28.69	32.09
Okra – Frozen	73.59	89.68	85.01	85.96	89.51	92.55	86.80
Brussels Sprouts – Processed	45.84	29.84	19.19	14.73	15.96	11.56	12.89
Pineapples – Fresh or Dried	90.65	89.31	90.31	88.82	86.72	86.68	92.62
Pineapples – Processed including Juice	2.49	2.11	2.38	2.30	2.17	2.96	2.71
Guavas, Mangoes and Mangosteens – Fresh or Dried	5.40	4.54	4.52	3.91	3.22	2.73	2.86
Guavas, Mangoes and Mangosteens – Processed	7.63	7.04	7.07	5.29	5.21	4.32	3.25
Watermelons – Fresh	4.91	6.07	9.94	7.23	7.79	9.48	11.61
Other Melons – Fresh	59.37	63.41	76.19	79.68	75.30	73.45	76.89
Other Melons – Processed	33.20	49.81	51.46	62.68	81.43	77.69	75.81
Papayas – Fresh	3.17	2.99	2.31	1.92	0.72	1.82	1.38
Papayas – Processed Products	33.15	29.96	28.51	24.55	20.06	24.13	20.26

Source: USITC 2007.

D. THE CAFTA-DR AGREEMENT

Provisions of the Agreement

CAFTA-DR differs significantly from the time limited CBI. First, the treaty sets forth “rules of trade” governing investment protection, intellectual property rights, government procurement, and labor and environmental standards. Second, the signatories committed to work together to improve country capacities to implement the treaty and benefit from the market opportunities afforded by the treaty. Third, the treaty covers all tradables, including services; over time, it provides market access for almost all goods, although sensitive agricultural products have country-specific phase-out schedules for tariffs, ranging from one year to 18-20 years for poultry parts, rice, and dairy products (Jaramillo and Lederman 2006). Table 3.4 shows the key tariff-reduction schedules. Sensitive imports that have been excluded from zero-tariff status include sugar (United States), white maize (El Salvador, Guatemala, Honduras, and Nicaragua), and potatoes and onions (Costa Rica). Finally, compared with the CBI that required an annual review and approval process for countries to continue to have preferential access to the U.S. market, CAFTA-DR provides permanent access to the U.S. market, thereby enabling

governments and the private sector to base their investments on a predictable trade and investment framework.

Table 3.4 Tariff Reduction Schedule for Sensitive Agricultural Products

Product	Guatemala			Honduras			El Salvador			Nicaragua			Costa Rica		
	IT (%)	PP (yrs)	GP (yrs)	IT (%)	PP (yrs)	GP (yrs)	IT (%)	PP (yrs)	GP (yrs)	IT (%)	PP (yrs)	GP (yrs)	IT (%)	PP (yrs)	GP (yrs)
Beef*	-	10	0	15	15	6	15	15	0	15	15	3	15	15	4
Pork	15	15	0	15	15	0	40	15	6	15	15	0	47	15	6
Poultry	164.4	18	10	164	18	0	164.4	18	10	164.4	18	10	151	17	10
Dairy Products	15	20	10	15	20	10	40	20	10	40	20	10	66	20	10
Yellow Maize	-	10	0	45	15	6	15	15	6	15	15	0	15	15	0
Beans	20	15	6	15	15	0	20	15	15	30	15	0	47	15	0
Fresh Potatoes	15	15	0	15	15	0	15	12	0	15	15	0	Excluded		
Rice	29.2	18	10	45	18	10	40	18	10	63	18	10	36	20	10

Source: UN-ECLAC 2004 in Jaramillo and Lederman 2006.

IT: initial tariff level; PP: phase-out period; GP: transition period.

* Beef products other than prime and choice cuts.

Other important agricultural sector provisions included in CAFTA-DR are those for tariff-rate quotas (TRQs), agricultural safeguards, and sanitary and phytosanitary (SPS) measures. TRQs for many sensitive products provide immediate, tariff-free market access for a specific quantity of imports, which increases by 2 percent to 5 percent annually based on historic growth trends. Agricultural safeguards are designed to protect against import surges of sensitive products. When imports of a specific good exceed a predetermined quota, safeguards are automatically activated to increase the tariff to the pre-agreement level. Science-based SPS standards are defined by a working group, which facilitates the provision of technical assistance by U.S. agencies (Jaramillo and Lederman 2006).

Anticipated Effects of CAFTA-DR on Agricultural Production and Rural Poverty

CAFTA-DR has generated considerably less research than NAFTA on how the signatories could best position themselves to maximize the benefits of the Agreement. Significant efforts to estimate economic impacts and consequences have been undertaken using partial equilibrium and aggregated computable general equilibrium (CGE) models as well as micro-level techniques. Furthermore, some research methodologies done for Mexico's NAFTA preparation were deemed applicable to CAFTA-DR. This section summarizes the conclusions of studies undertaken by researchers at the World Bank and the Inter-American Development Bank (IDB) during the latter stages of CAFTA-DR negotiations, as well as those of a study by researchers at the International Food Policy Research Institute (IFPRI).

The most comprehensive study by World Bank researchers utilized a general-equilibrium simulation model constructed for Nicaragua in 2005. This study, which focused on income levels and distribution, international trade, and factor market relationships, found that basic grains production was the only agricultural sub-sector that would contract, given its loss of high protectionist tariffs and its low export orientation (Bussolo and Niimi 2006). Nevertheless, a small population of net food producers from these countries (those who produce more of the basket of sensitive commodities than they consume) would experience (static) welfare gains due to CAFTA-DR-induced price changes (Jaramillo and Lederman 2006).

Because the agricultural sector faces the largest reduction in tariff protection under CAFTA-DR and can expect much competition from imports, its inter-sectoral linkages need strengthening in order to achieve potential output gains that are larger than those for any other sector. This study concluded that CAFTA-DR in Nicaragua “could have an overall modest (positive) impact on Nicaraguan welfare (income per capita), but poor rural households [would be] negatively affected” (Jaramillo and Lederman 2006).

A second study by researchers at the World Bank assessed the likely impact of CAFTA-DR on exports, based on the experiences of various countries under earlier FTAs. They also developed a regression model to estimate the reduction in poverty and extreme poverty for the CAFTA-DR countries between 2005 and 2010. As shown in Table 3.5, CAFTA-DR is estimated to reduce poverty by amounts ranging from 0.6 percentage points in Costa Rica to 1.6 in Guatemala. Reductions in extreme poverty would range from 0.3 percentage points in Costa Rica to 1.3 in Honduras. An estimated 910,000 people in Central America would benefit.

Table 3.5 Estimated Poverty-Reduction Effects of CAFTA-DR for the Central American Countries, 2005 to 2010 (Percent of National Populations)

	Headcount Poverty Rate			Extreme Poverty Rate		
	2005	2010	Difference	2005	2010	Difference
Costa Rica	20.4	19.8	-0.6	6.0	5.7	-0.3
El Salvador	36.4	35.0	-1.4	14.7	14.1	-0.6
Guatemala	55.9	54.3	-1.6	15.5	14.4	-1.1
Honduras	63.1	61.9	-1.2	45.7	44.4	-1.3
Nicaragua	45.6	44.7	-0.9	14.9	14.2	-0.7

Source: World Bank 2005b.

Note: 2005 poverty rates are Bank estimates based on most recent official data. 2010 estimates assumes per capita GDP growth rate of 0.6 % per year and poverty elasticities taken from most recent World Bank Poverty Assessment studies. Elasticities for Costa Rica derived using results from Lopez and Serven (2005).

A third study conducted by World Bank researchers employed a household survey to assess expected impacts from liberalizing sensitive agricultural commodities in El Salvador, Guatemala, and Nicaragua. This study targeted households comprised of either “net consumers” or “net producers” of the eight “sensitive” products (including milk and milk products, beef, pork, and chicken) in the basic food basket. The researchers then used the survey data to estimate the impact on consumption of price shifts from tariff reductions and used a CGE model to determine the households most likely to gain or lose under CAFTA-DR. The study identified large groups of net consumers in El Salvador (68 percent of all households), Guatemala (84 percent), and Nicaragua (90 percent) as the principal beneficiaries of the price reductions. Nevertheless, a small population of net producers (those who produce more than they consume) in El Salvador (5 percent), Guatemala (16 percent), and Nicaragua (9 percent) would experience (static) welfare losses arising from the lower prices anticipated under CAFTA-DR. Assuming that current product lines and technologies are employed by producers, the study concluded that the largest benefits to rural areas from CAFTA-DR will likely come from direct investment, improvements in technology and productivity, increased employment and higher levels of economic growth (Jaramillo and Lederman 2006).

The IDB funded two studies. The first, providing a literature review and a conceptual framework to help guide the policy dialogue as Central American countries emerged from negotiations, concluded that:

- CAFTA-DR can provide new opportunities to rural communities via higher-value crops and value-added products but these impacts will not occur without appropriate policies and support programs.
- The adjustments these countries must make will result in some losses, particularly for small-scale farmers, so countries will need to provide technical assistance and/or income support to those affected negatively.
- Traditional production agriculture will not be the only solution; alternative employment opportunities will need to be pursued (Todd, Winters, and Arias 2004).

In 2005, an IDB team completed a second set of country-level studies in El Salvador, Guatemala, Honduras, and Nicaragua. Each study was based on a detailed household survey employing a special CGE program (MEGRUM) focused on income levels and distribution. The conclusions of the Guatemala case are illustrative:

- Producers of sensitive products will be negatively affected in different ways, with the most affected being small producers of basic grains, most of whom have limited access to basic food markets and who consume what they produce.
- It is critical that small producers of basic grains shift enterprises to NTAEs if they are to gain from the opportunities provided by CAFTA-DR.
- The low capacity of small producers to shift to NTAEs will result in migration to urban areas and the United States, as well as more dependence on remittances.
- Short-term economic gains from the effects of tariff reductions and increased quotas for sensitive crops will be very low. In the long run, falling prices for agricultural products will result in a small net increase in rural incomes (Taylor et al. 2006).

Similarly, IFPRI and RUTA used national CGE models to simulate the impact of CAFTA-DR on GDP growth rates. The analysts concluded that tariff reductions (alone) would add an average of only 0.1 percentage points to annual GDP growth rates in Costa Rica, El Salvador, Honduras, and Nicaragua. Increased quotas in the U.S. market would have no effect, except in Nicaragua (0.2 percentage points). By far the largest effects would result from the new rules of origin for *maquila* operations — 1.4 percentage points in Honduras, 0.6 in Nicaragua, 0.4 in El Salvador, but only 0.01 in Costa Rica, compared to the non-CAFTA-DR scenario, under which most *maquila* firms would have been forced to close after preferential benefits terminate in 2008. The anticipated effects on poverty were likewise small: a tiny reduction resulting from tariff cuts, virtually no effect from quotas, and a sizeable reduction from keeping *maquila* firms in operation (Jansen, et al. 2007).

While the studies demonstrate that CAFTA-DR (by itself) will have only a small but positive net effect, what these studies do not estimate is the considerably higher economic gains that could be obtained if the CAFTA-DR countries made the right policy reforms and capacity building investments in support of trade-led agricultural diversification. As demonstrated by the Chile case (see Sections 2 and 4 as well as Volume II), the right mix of policy reforms and investments in basic private and public services can facilitate the notable growth of highly remunerative agro-industrial value chains through powerful backward and forward linkages with the industrial and services sectors, thereby sparking more robust, broad-based economic growth.⁷

Indeed, the initial experiences of the CAFTA-DR countries under the CBI have demonstrated the considerable potential for diversifying agriculture when policy reforms and investments support the generation of agro-industrial value chains. Further, significant opportunities exist even for traditional exports, as demonstrated by specific product successes by the Dominican Republic (organic cacao), El Salvador (processed foods for ethnic markets in the U.S.), Guatemala (specialty coffee), Honduras (melons), and Nicaragua (cheese and red beans). However, as revealed in greater detail in the country reviews in Volume II, the promising but still somewhat nascent diversification process needs to be broadened and deepened through targeted public sector activities and public-private collaborative efforts that would permit more small and medium-sized producers and enterprises to participate in, contribute to, and benefit from access to new markets.

Government Responses to CAFTA-DR's Anticipated Effects in Rural Areas

With CAFTA-DR now being implemented, the treaty provides a market incentive platform for countries to implement necessary reforms, not only to comply with treaty obligations but also to maximize potential export earnings if supported by appropriate policy reforms and investments. With CAFTA-DR in place, the countries of the region are now challenged to make the structural changes needed to further transform agriculture by stressing export production and making the requisite policy reforms and investments to ensure that small producers can participate in export activities. This challenge becomes more apparent in the face of recent food price hikes and their persistence, and the requisite advancement of the new era *agenda interna*.

In this context, and if appropriately structured, the price increases could provide a cushion to help prepare and launch the policies and investments required to advance trade-led agricultural diversification. While all CAFTA-DR countries have directed some attention to improving the sector's competitiveness, none have been able to confront this in the comprehensive and systematic context of the pressing new realities, while some responses have actually generated increased confusion. For example, while Honduras and Nicaragua have launched new small producer support programs (*Plan Maiz* and *Hambre Zero* respectively), many profess that, in the context of the new trade-driven realities and opportunities, these highly publicized support programs may be facilitating inappropriate governmental dependencies while doing little to advance serious investment in support of trade-led agricultural diversification.

⁷ For example, in the IFPRI and RUTA studies, the researchers looked at the potential cost-benefit ratios for investment in three types of infrastructure (roads, electricity, and telephones) in four of the five Central American countries (Nicaragua excepted) (Jansen, et al. 2007).

Continued protection and inattention to diversification of small, inefficient basic grain producers potentially condemns them to remain in poverty or join the ranks of those in extreme poverty. The rising food prices that will hurt far more net food consumers than will benefit net food producers, combined with a declining remittance base due to U.S. immigration controls and a U.S. economic slowdown, will further reduce the potential avenues of escaping poverty. While all countries in the region can claim some successes in helping small farmers participate in export-oriented value chains as a path out of poverty, the numbers remain small compared to the much larger numbers having potential to benefit.

Under the terms of the Agreement, a Trade Capacity Building Committee (“the Committee”), comprised of representatives of each of the Parties to the Agreement, was established to assist each Party to implement the treaty and benefit from liberalized trade. Each Party provides to the Committee, and periodically updates, a national trade capacity building strategy. Among other things, the Committee is charged to seek the prioritization of trade capacity building projects; and to invite appropriate international donor institutions, private sector entities, and non-governmental organizations to assist in the development and implementation of trade capacity projects in accordance with the priorities set out in the country strategies.

In their national trade capacity building strategies, all recipient parties described difficulties their agricultural sectors and rural areas would confront in competing in national and international markets. For example, the Government of Honduras stressed the need for a rural development program to respond to CAFTA-DR challenges and opportunities, emphasizing technology transfer, crop research, identification of diversification opportunities, access to capital, safety nets, risk mitigation, and improved market links (Honduras 2003). However, the NAPs generally were weak on strategies for improving competitiveness and for increasing opportunities for small-scale farmers to participate in agricultural diversification efforts. Moreover, while few stakeholders interviewed were aware of the NAPs, they expressed great concern regarding the need to strengthen national competitiveness capacities and government commitment to advance needed reforms in order to facilitate investment and broader participation. The process of periodically updating the NAPs offers ministries of trade an opportunity to overcome these problems by reaching out to and engaging other ministries as well as the private sector in a process to articulate a strategic vision for trade-led agricultural diversification.

To varying degrees, CAFTA-DR country leaders have also developed national competitiveness plans that give high priority to agro-industry or agribusiness. While their national visions seem most appropriate and generally well focused, these plans seldom reflect the numerous structural challenges, tend to be weak on long-term strategies, and do not articulate the specific actions that need to be undertaken within finite time frames.

Limited national commitments as well as weak institutional and technical capacities have slowed comprehensive follow-on measures and implementation through the new era public and private support mechanisms now required. For example, most countries have charged their ministries of agriculture with implementing a sector competitiveness agenda and support effort. However, the country reviews make it clear that these ministries and/or other public and private sector partners do not have strong capacities to identify the sector-related planning and policy reforms that need to be considered in order to formulate a national strategy and program, as well as a commitment,

to assist small and medium-sized producers in critical support areas — plant and animal health, food safety, technology development, production and post-harvest technical skills, agribusiness skills, financial services, and the institutional services to address the economy of scale limitations faced by these producers.

E. OTHER MARKETS: MEXICO, SOUTH AMERICA, EUROPE, AND ASIA

Export opportunities for the CAFTA-DR countries are not limited to the U.S. market. Significant opportunities — including those in niche markets for high-value fruits and vegetables and specialty coffees — exist in the 27 countries of the European Union (EU). Total agricultural exports from Central America (including Panama) to the EU rose from €1.94 million in 2002 to €2.35 million (US\$2.94 million) in 2006 (DG Trade 2007). The Central American countries began formal negotiations for an Association Agreement with the EU in June 2007; if agreement is reached, this would open up new market opportunities in the EU.

While the United States offers by far the largest market opportunity for the CAFTA-DR countries, the CAFTA-DR countries should also look for and exploit targets of opportunities in other markets, such as Mexico, South America, and Asia.

SECTION 4. LESSONS LEARNED FROM OTHER COUNTRY EXPERIENCES

A. INTRODUCTION

This Section briefly summarizes the contrasting agricultural diversification experiences and respective strategic approaches of three Latin American and Caribbean countries — Chile, Costa Rica, and Mexico (specifically, southern Mexico under NAFTA) — from which the CAFTA-DR countries can draw important lessons. Costa Rica, which now seems set to join CAFTA-DR,⁸ is discussed here because of its relatively early successes. Volume II presents more detailed presentations of these country experiences that provide insights into how policy reform and new public and private sector institutional structures and programs are addressing trade liberalization and agricultural sector competitiveness.

B. CHILE

Chile's population is overwhelmingly urban: 86.6 percent in 2005 (UN-ECLAC 2007b). Yet much of its impressive economic growth over the last three decades has been based on agricultural exports, both fresh (notably fruits) and processed (e.g. wines, frozen salmon, wood products, and olive oil), the result of a process of broadly participatory, trade-led agricultural diversification. Prior to this period, Chile, like many other LAC countries, had embraced an import substitution industrialization strategy. This strategy, whose origins go back to the 1930s, was sometimes carried out to costly extremes, as in the effort to establish a national automobile industry (Johnson 1967). Chile's uneven economic growth in the 1950s and 1960s, as well as the populist economic policies of the Allende administration (1970-1973), contributed to a military coup in September 1973.

The military government, which lasted until 1990, began to introduce a series of major economic policy reforms, many of them predicated on the notion that rapid and sustained economic growth of the Chilean economy depended on the country becoming much more open to external trade. Chile's tariffs were cut from an average of more than 300 percent in 1970 to 44 percent by 1975. A uniform rate of 11 percent, adopted in 1991, was sharply reduced to 6 percent between 1993 and 2003. As the number of trade agreements continued to increase, the effective average tariff fell to about 2 percent by 2006 (IMF 2007). After a sharp but brief economic downturn in the early 1980s — in which both natural disasters and a rigid exchange rate policy played major roles — the economy has experienced a quarter century of relatively rapid and sustained economic growth. Progress in poverty reduction was less impressive until the post-1990 civilian governments introduced more targeted programs to provide greater economic opportunities to the poor, including small farmers. Between 1990 and 2003, the incidence of poverty fell from 38.6 percent to 18.7 percent of the population nationally and from 38.8 percent to 20 percent in rural areas. Both of these figures are the lowest in the LAC region (UN-ECLAC 2006b).

⁸ Costa Rican voters narrowly approved the country's participation in CAFTA-DR in a referendum on October 7, 2007, and on November 21st, President Oscar Arias signed the Agreement into law. For the law to take effect, Costa Rica's legislature will have to approve 13 complementary measures in 2008.

Most notably, a major factor for this significant achievement was that Chile's primary agricultural exports of increasingly remunerative and diverse products rose from US\$86.1 million in 1975 to US\$949.5 million in 1990 and US\$2.7 billion in 2006 (BCC 2001; BCC 2007). Further, in 2006, total primary and processed agricultural sector exports (including forestry and fishing) exceeded US\$13 billion, or about 23 percent of all commodity exports (BCC 2007). One key impetus for this impressive gain was the expansion of non-traditional exports largely composed of lightly industrialized natural resource-based products, such as fresh and processed fruits and seafood products, wine, and diverse wood products. An initial factor in Chile's success in non-traditional exports was the creation of ProChile (within the Ministry of Foreign Affairs) to offer export promotion services, especially to the then-weak agricultural sector. Agriculture also benefited from technical assistance and loans from a variety of other entities — to include an evolving and strengthened Ministry of Agriculture structure, much of which was targeted to innovative applied and adaptive research and human resource capacity building activities involving new products and responds to the needs of new markets.

While Chile relied heavily on private investment to pursue export market opportunities, the government co-invested in programs to address the principal obstacles to developing and strengthening agribusiness value chains that expanded opportunities for the participation of small-scale farmers. Instead of protection and subsidies to support traditional commodities, or income transfers, Chile focused on a wide variety of highly complementary and innovative institutional and market-led support programs via diverse public and private sector facilitating arrangements and activities. These were focused to enhance competitiveness, while also facilitating long-term linkages between small-scale producers and agri-businesses to facilitate sector modernization, while also facilitating agricultural and industrial sector complementarities, thereby stimulating numerous cost-effective economic multipliers. While ProChile was one critically important activity, over the years and in response to market demands, as presented below, a series of other support mechanism have evolved and stayed the course.

Generally speaking, while the Chilean government did not initially engage in directed training, after Pro Chile's formation, that policy was altered so that needed producer-level skills were developed. This was done through subsidized and fee-for-service assistance that evolved through diverse training organizations based on public-private finding arrangements. This program evolved to its current mandated smaller producer focus. In addition, special demand-based programs on priority needs such as irrigation and land reclamation investments were facilitated by subsidized competitive bidding arrangements. In 1996, ProChile created the Forestry and Agricultural Products export fund to expand and target specialized assistance and facilitate investments. The National Institute for Agricultural Innovation (INIA) focuses on the development and expansion of innovative farming practices and agro-industrial product processing technologies targeted to expanding exports.

The other institutional pillar was the Chile Foundation (Fundación Chile) which was created as a public/private organization targeted to cost effectively advance the sector. Created in 1976 and funded with an endowment of funds generated under the ATT expropriation, the foundation's activities have evolved within the ever-adjusting overall Chilean public/private institutional structure. Currently, the foundation is focused on promoting the transfer of technology through the creation of new enterprises in the form of joint ventures with private sector companies. It is

also important to note that Chile made a major complementary investment in supporting training in Chilean institutions and also advanced degree (MS and PhD) training at U.S. universities having similar agro-ecological conditions.

Reflecting on Chile's success in developing the capacity of its agricultural sector to compete in export markets, one lesson learned is that Chile sustained its commitment to this trade-led model across multiple administrations over 30+ years, providing diverse types of institutional support.

C. COSTA RICA

Costa Rica's evolution toward and institutional support for trade-led agricultural diversification evolved later and differently. Most observers of the LAC region date its debt crisis of the 1980s from the Mexican events of August 1982. Yet Costa Rica had a debt crisis more than a year earlier, in July 1981, when it suspended payment on its external debt. While the amount of external debt affected was far less than that of the much larger Mexican economy, Costa Rica's debt indicators were generally worse than Mexico's, and the crisis triggered a severe economic downturn (Zuvekas 1993). This contraction set the stage for a reconsideration of economic policy, which had been dominated by an import substitution model in which agriculture was downplayed; industry concentrated on exporting to the protected Central American market; and numerous state-owned enterprises contributed to often serious fiscal imbalances.

Unlike Chile, Costa Rica has implemented economic reforms gradually, while also nurturing a different public/private institutional support base. Still, several major steps were taken soon after the debt crisis. A large depreciation in the exchange rate provided an incentive to exports, which were further stimulated by improved access to the U.S. market under the CBI. Tax incentives to exporters (some of them over-generous and fiscally costly) began to be introduced in 1984, and trade barriers were unilaterally lowered in 1986. As in the Chilean lesson learned, both public and private sector organizations, some of them new, aggressively sought and promoted new export opportunities. However, as observed in detail in Volume II, the discussion is not as extensive, given Chile's longer experiential base and different policy approach.

The Ministry of Exports, founded in 1964, launched a new public/private sector institutional support framework. The principal public sector agencies include the National Investment Council (Consejo Nacional de Inversiones), the Exports Processing Zone Corporation (Corporación de Zonas de Procesamiento de Exportaciones), the Central Bank, and the Ministry of Finance, while the private sector institutions included the Costa Rican Coalition of Development Initiatives (CINDE), an organization that received considerable initial funding and support from USAID in its startup, and the Chamber of Exporters (CADEXCO). Among other functions, CINDE was responsible for creating specific programs and projects to support NTAEs and investments, and created a special division to promote products while facilitating the necessary technology development and business enabling environment to encourage the necessary producer-level competitiveness. These services were introduced to help penetrate and be competitive in distant markets.

Costa Rica's average annual GDP growth since the early 1980s (4.9 percent from 1983 through 2006) has been faster than that of any of the other Central American country as well as the Dominican Republic (4.4 percent) (Volume I, Annex C, Table C.3). NTAEs rose from US\$54

million (8 percent of total agricultural exports) in 1984 to US\$716.8 million (41 percent) by 1997 and US\$904.1 million (50 percent) in 2006 (BCCR 2007). Costa Rica also has experienced significant growth in manufactured exports (including *maquila* production), and ecotourism — with significant linkages to the agricultural sector and broader rural economy — has become one of the country's main sources of foreign exchange.

The expansion and diversification of agriculture during the 1980s resulted in significant employment creation and wage increases in rural areas, contributing to a reduction in the incidence of poverty. Costa Rica came to rival Thailand for world leadership in fresh pineapple exports and also had significant successes with specialty coffees. Improved fiscal discipline and institutional reforms, as well as continued strong support for basic and higher education and incentives for technology upgrades, were additional key ingredients to improve the climate for both domestic and foreign investment.

D. MEXICO

The debates within the CAFTA-DR countries on whether to ratify their trade agreements with the United States were influenced by Mexico's experience under the North American Free Trade Agreement (NAFTA) — or perhaps more accurately by the varying perceptions of NAFTA's effects both generally and in particular on small basic grains producers. The facts suggest that the expected negative impacts on small producers were well-founded, and also that the response of the well-intended Mexican government to such unprecedented challenges toward mitigating the expected negative effects has proven to be short-sighted, slowing rather than facilitating these farmers' shift to the production of higher-value crops, or to more remunerative non-agricultural pursuits.

Prior to the mid-1980s, when major macroeconomic and institutional reforms were initiated after Mexico's debt crisis, agriculture had been a heavily protected sector. For example, before NAFTA, Mexico's maize tariff stood at 200 percent and support services were not market-based. When compared with basic grains producers in the United States, the productivity levels of small basic grains producers in the south of Mexico have remained low for a variety of reasons. Among these, Mexico's national government reduced its support for agricultural services, including research and extension. While such services had once provided support for basic grains, that support did not necessarily meet the needs of the small producers of basic grains in the south of Mexico, or help those producers to diversity into higher-value enterprises. State-owned production, marketing, and other services were privatized, but the private sector was slow to — or never did — fill the void. Similarly, as in the CAFTA-DR countries, due in part to the still lingering consequences of import substitution, perceived risks, and vested political interests, private investors neglected remote areas where the incidence of poverty was highest and prospects for profitable returns seemed low in the face of multiple constraints, including infrastructure deficiencies and the lack of an effective system of public support to rural producers.

Mexico began implementing NAFTA in September 1991. To assist the rural sector in adjusting to the treaty, the national government launched the *Programa de Apoyos Directos al Campo* (PROCAMPO) in 1993 and the *Alianza Para El Campo* in 1996. PROCAMPO was intended to provide payments to basic staple producers facing competition from the U.S. and Canada and to

help producers shift to more competitive crops (Lederman, Maloney, and Serven 1995). This program provided direct income transfers to more than four million producers of traditional crops (i.e., barley, beans, maize, cotton, rice, sorghum, soy, sunflower, and wheat), based on a standard per hectare amount for all producers, regardless of productivity and farm assets and endowments to undertake enterprise shifts. As of 2006, US\$20 billion had been provided to these producers, most of them in Mexico's poor southern states (Peña 2006). PROCAMPO payments were scheduled to terminate in 2008 with the phasing out of remaining agricultural tariffs but, in response to the rural disturbances, are now to continue until 2012.

Under the *Alianza Para El Campo*, apart from its initial subsidy payment component to the more commercial sector, a broader effort was undertaken to more directly assist smaller producers diversify from basic food staples with the provision of essential support efforts including broad technology assistance, irrigation infrastructure, plant and food safety services, and rural development social services.

While the PROCAMPO and Alianza initiatives improved subsidy program efficiencies, broader impacts were slow to develop. For example, they contributed to increasing maize production at a time when world prices were declining. This unanticipated result, combined with relatively slow growth in other sectors, kept rural wages from rising. Nevertheless, on the national level, the incidence of rural poverty, after increasing from 56.7 percent in 1989 to 62.8 percent in 1996, fell significantly to 47.5 percent in 2005, while the incidence of extreme poverty rose from 27.9 percent, (1989) to 33.0 percent (1996), and then fell to 21.9 percent (2005) (UN-ECLAC 2006b), with poverty indices much higher in the south

Meanwhile, Mexico's commercial producers, concentrated in the north and taking advantage of easier access to U.S. markets under NAFTA, greatly expanded fruit and vegetable operations for export. Mexico became the top supplier to the United States of 10 percent of all U.S. agricultural tariff lines (López-Córdova 2001). Exports of processed foods, important for their employment and economic contributions, grew by 9.4 percent annually from 1994 to 2001 (Sarmiento 2003). This expansion, however, was insufficient to absorb the increasing numbers of poor migrants from the south who often continued north and, in some cases, participated in expanded illicit drug trafficking. Reflecting on Mexico's experience, the Carnegie Endowment concluded that "while NAFTA's overall impact may be muddled, for Mexico's rural households the picture is clear—and bleak" (Audley, Papaapemetriou, Polaski, and Vaughan 2004).

In spite of Mexico's access to the world's largest market, year-round growing season, and diverse agro-ecological setting, the country's agricultural sector as a whole has experienced relatively slow expansion and has underachieved relative to its diversification potential. From 1990 to 1995, its agricultural GDP grew by only 1.8 percent annually, compared with 2.4 percent for all middle-income countries annually over the same period (World Bank 2001). Further, despite the growth in NTAEs noted in northern Mexico, the nation's agricultural sector has recorded one of the lowest levels of intra-sector diversification of any LAC country. Indeed, even as late as the mid-1990s, Mexico was significantly behind other LAC countries in terms of beginning to shift its cereal sub-sector into the more remunerative sub-sectors (fruits, vegetables, oils, meats) holding greater potential to generate considerably more value-added jobs and income growth (Bathrick, Byrnes, and Stovall 1996).

Given these serious structural impediments and the limited attention paid them during NAFTA's transition period, scheduled tariff reductions commencing January 1, 2008 will result in further challenges to high-cost producers of corn, beans, sugar, and milk. In this setting, major producer and political party-led demonstrations erupted as 2007 drew to a close, resulting in a considerable push upon Mexico's president Felipe Calderón for a \$20 billion rural assistance program or a renegotiation of NAFTA.

E. COMPARISON OF SECTOR VALUE-ADDED AS PERCENTAGE OF GDP: CHILE AND MEXICO

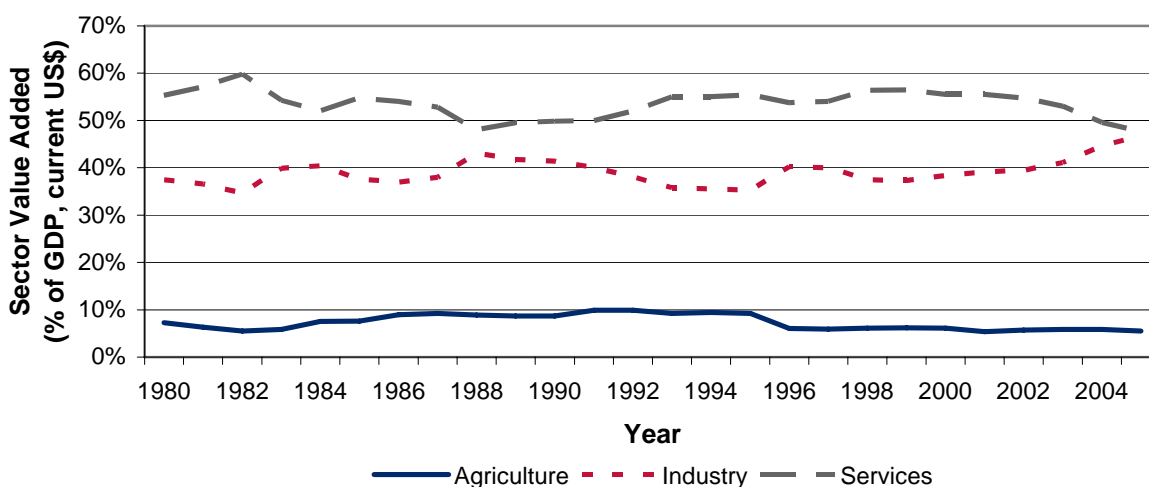
It is important to compare the sector value-added trends for the CAFTA-DR countries (Graph 2.1 in Section 2) with those for Mexico and Chile as shown below in Graphs 4.1 and 4.2, respectively. By comparing Graphs 4.1 (Chile) and 4.2 (Mexico) with Graph 2.1 (discussed in Section 2), what becomes clear is that, in the CAFTA-DR countries, industry reached its largest sector value-added share (30 percent) of GDP in 1999 and then declined to 28 percent in 2006, while agriculture's share had generally plateaued or in recent years trended upward except for Honduras.

In the mid-1990s, Chile saw a sharp decline in agriculture's value-added contribution to GDP. This decline, however, leveled off by the mid-1990s and agriculture's share of GDP has been sustained at a relatively constant level into the mid-2000s, due in part to continuing effort on the part of Chile to improve total factor productivity of key commodities that form the productive base for cost-effective product transformation for export markets. At the same time, the lagging industry sub-sector rebounded and gradually expanded its contribution to GDP. This sustained transformation experience, over a relatively brief period, resulted in increased exports of agricultural primary and processed agricultural (agro-industry) goods, forming a major component of Chile's exports. Examples of value-added processing of agricultural crops include grapes into wine, packaged and processed fruits, smoked and canned salmon, and processed forest products, among others.

On the other hand, commencing in the late 1980s, as Mexico began its period of historic change introduced by NAFTA, Mexico's agriculture and industry sectors gradually declined, while the service sector grew by nearly 20 percent.

While Graphs 4.1 and 4.2 reflect the clear trends noted above, there are limits on how much one can interpret from the graphs. Time constraints did not permit investigation into some inter-related issues. For example, for Chile, it is not clear how much of the decline in agriculture's contribution to GDP is attributable to a fall in relative agricultural prices compared with increases in copper prices. Also, the decline in agriculture's contribution to GDP is not placed in the context of the sector's otherwise strong performance, or even stronger performance in other sectors of the economy as reflected by the sharp rise in industry's share of GDP between 2002 and 2005.

Graph 4.1. Sector Value-Added, Percent of GDP, Chile, 1980 – 2005 (Current US\$)

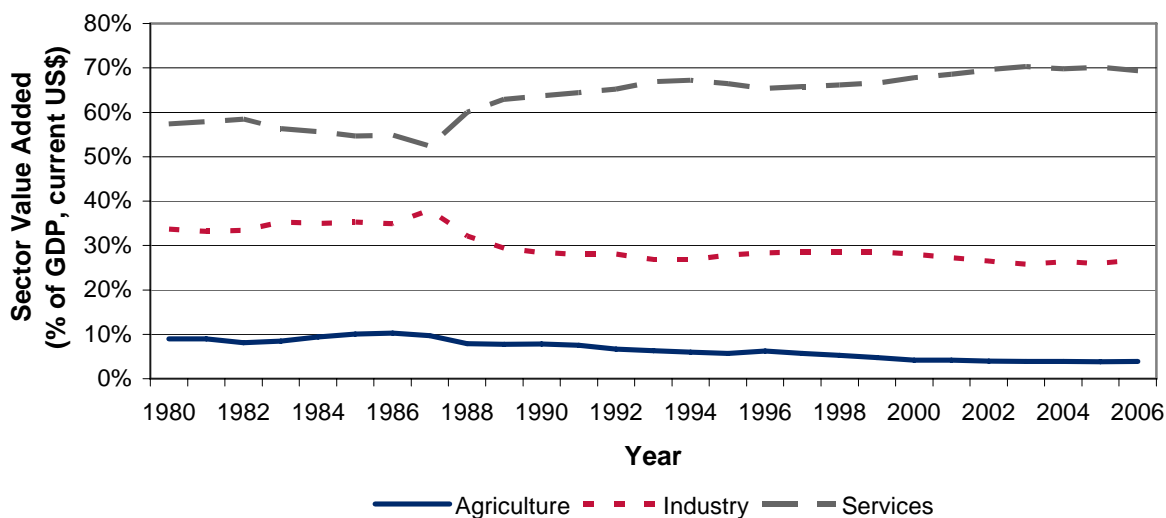


Source: World Bank 2007

Note: Data for Chile in 2006 was unavailable from the WDI.

While answering such questions would require additional data and analysis, this study's interpretation of industry's (increased) and agriculture's (sustained but increasingly productive) contribution to Chile's GDP likely reflect the extent to which Chile's export-oriented agro-industrial sub-sector increasingly has become the principal driver for broad-based economic growth over the past decade. Further, in spite of some similarities between the trend lines shown in Graph 4.1 (Chile) and 4.2 (Mexico), this section has highlighted significant differences between these two countries in terms of the political commitments — and the strategic and institutional responses — made to restructure their respective agriculture sectors and the notable resulting outcomes in terms of poverty reduction.

Graph 4.2. Sector Value-Added, Percent of GDP, Mexico, 1980 – 2006 (Current US\$)



Source: World Bank 2007

For Chile, while agriculture's value-added (as a percentage of GDP) declined sharply in the mid-1990s, the composition of the sector shifted dramatically away from cereals (their equivalent of "basic grains") and increasingly toward high-value crops and value-added products, with the result that the agricultural sector (or emerging agro-industrial sector) contributed significantly to robust industrial sector growth (from 38 percent in 1998 of value-added contribution to GDP to 46 percent in 2004). By comparison, agriculture's value-added contribution to GDP in Mexico (Graph 4.2) has continued to decline precisely because such a large portion of the sector continues mired in the production of low-value basic grains, particularly in southern Mexico. Note that Graph 2.1 provides comparable data for the CAFTA-DR countries. At the same time, Mexico deliberately focused on other sub-sectors to exploit its comparative advantages, mainly its industry via *maquila*, wherein "cheap labor" alone became a principal motivator. However, rather than maintaining sector competitiveness, over the last decade the *maquila* sub-sector observed a flattening and decline within the industry sector, with this sector's value-added growth contribution to GDP declining from 29 percent in 1996 to 28 percent in 2006.

F. CONCLUSIONS

All three countries — Chile, Costa Rica, and Mexico — have benefited from significant macroeconomic policy reforms. Only Chile and Costa Rica, however, have provided a mix of public and private support that has been responsive to market and competitiveness realities, and capable of mobilizing investments and stimulating inter-sectoral linkages generating broad-based growth. These mechanisms provided critical help to motivate a national response capacity that is particularly critical to help facilitate small and medium-sized producers and entrepreneurs to succeed in exporting high-value fruits and vegetables and other fresh and processed agricultural, livestock, and aquaculture/marine products. This mutually supportive policy, institutional, and program support base has become critical for significantly raising incomes and increasing investments. Further, to the extent agri-businesses and investors sought to seize the special opportunity provided, these special structures were critical to penetrate and confront the prevailing negative mindset, inherent multiple risks, and sector de-capitalization such that a national awareness and complementary political support evolved, enterprise shifts advanced, exports expanded, and poverty declined.

The most important message from the Chilean and Costa Rican experiences is that, in the context of globalization's race to the market place, the CAFTA-DR countries, all having advanced on the macroeconomic front, now need to take the next step to form an appropriate support framework and program structure to better enable rural households and agribusinesses to transform land and labor endowments into more competitive, market-linked activities tied to agro-processing and agro-industrial activities. To the extent that small-scale producers of "sensitive" crops can begin to access appropriate public and/or private diversification-facilitating services, this provides an essential path to reducing poverty in the CAFTA-DR countries.

The key lesson learned from the negative experience of Mexico, globalization's realities, and the recent trends observed in the CAFTA-DR countries under the CBI, is that the Central American countries and the Dominican Republic must not fail to quickly begin to utilize the transition period under CAFTA-DR to articulate and implement a strategic vision and corresponding support base for trade-led agricultural diversification as the only sustainable engine for rural economic growth and poverty reduction. In this context, focus and sustained commitment by the

national leadership, including progressive business and producer leaders and other key national stakeholders of the CAFTA-DR countries, become critical.

From this key lesson learned, and mindful of the politically-sensitive reforms, institutional rebuilding, and strategic investments that will be required by signatory countries, the time is propitious for CAFTA-DR stakeholders to visualize what would constitute an appropriately-focused and energized country and donor support base to assist producers in accelerating and benefiting from the trade-led agricultural diversification process.

SECTION 5. ACCELERATING TRADE-LED AGRICULTURAL DIVERSIFICATION

A. INTRODUCTION

This Section provides conclusions and recommendations for stakeholders in the CAFTA-DR countries, plus their donor and development assistance partners, to consider and discuss as they work to develop a consensus on the significant policy, program, and institutional reforms and related investments needed to unleash the potential of these countries' rural sectors to take advantage of agricultural diversification opportunities under the treaty and more fully benefit from trade-led growth. The section draws on the literature reviewed (Annex A), CAFTA-DR stakeholder interviews (Annex B), the analysis in previous sections, and the detailed country reviews (Volume II). It begins by summarizing the relationships of trade liberalization to macroeconomic performance, agriculture, and poverty, then reviews major constraints to advancing trade-led agricultural diversification. Finally, it offers key steps for defining, conceptualizing, and mounting a trade-led agricultural diversification strategy and program to accelerate economic growth and poverty reduction. While Volume I seeks to generate understanding of the need for and support for implementing a trade-led agricultural diversification strategy in the CAFTA-DR countries, national-level stakeholders and donor and development assistance partners should consider the detailed country reviews as presented in Volume II, given notable differences as well as commonalities among the countries of the region.

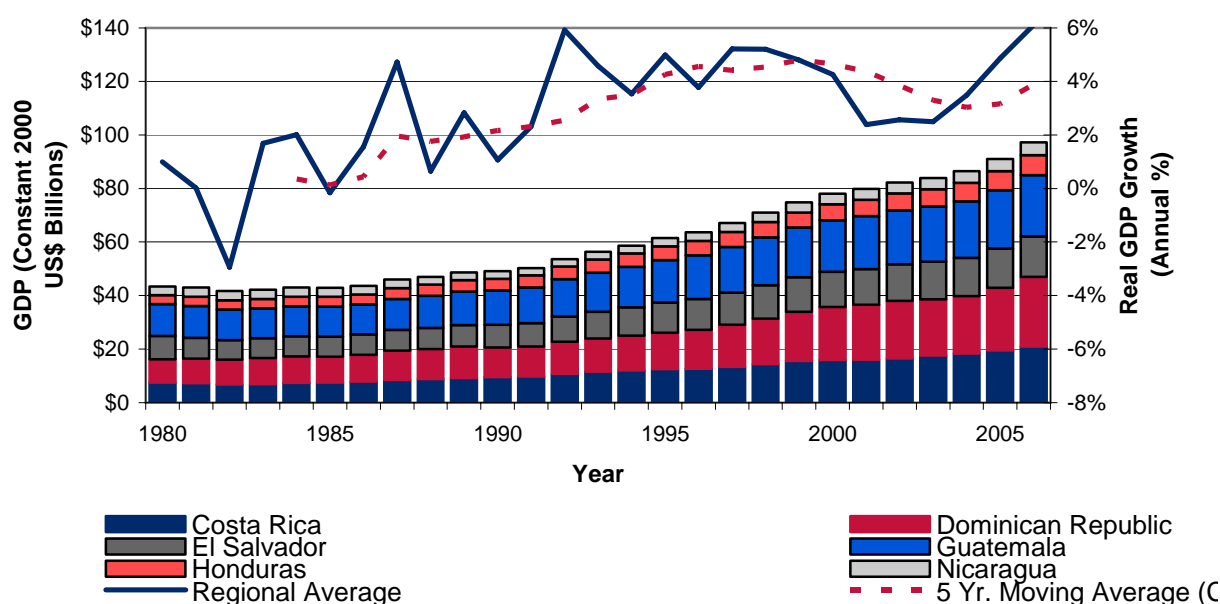
B. TRADE LIBERALIZATION AND MACROECONOMIC PERFORMANCE

The CAFTA-DR countries' experiences with trade liberalization since the 1980s have fallen short of expectations for a variety of reasons. As noted in Section 3 (Graph 3.1), average export growth peaked in the late 1990s and subsequently declined, due in part to the declining U.S. market share in textile *maquilas* and in some non-traditional agricultural exports (NTAEs) as reported in Section 3. During the 1980s, the Caribbean Basin Initiative provided an initial stimulus to non-traditional agricultural and *maquila* exports for the U.S. market. The initial dynamism of the *maquila* sector, however, has faded, partly the result of competition from China and more recently India, but also because the region's countries (as well as Mexico) have been slow to adopt competitiveness strategies for converting *maquila* operations into manufacturing activities using higher percentages of domestic inputs, including upgraded labor skills (e.g., style-related design innovations such as introduced in Nicaragua to take advantage of rapidly changing consumer preferences in the U.S. fashion market).

Reflecting the changing economic performance over time in response to evolving economic structures, Graph 5.1 provides an unweighted regional average of economic growth since 1980. In addition, country-level GDP values in constant dollars are tracked. From a very low/negative growth period — reflecting the effects of armed conflict in several countries and the debt crisis beginning in the early 1980s — regional GDP grew notably, peaking in 1992 at 5.9 percent in response to structural adjustment, the CBI and, in many countries, calming of rural violence and related civil strife. Although the regional growth rate dipped to an average of 2.5 percent during 2001-2003, in part because of the U.S. recession in the early years of the decade, it recovered to

an average of 4.8 percent during 2004-2006, due in part to the improved growth in 2005 and 2006 for the region's two largest economies, the Dominican Republic (9.3 percent and 10.7 percent, respectively) and Costa Rica (5.9 percent and 7.9 percent respectively — see Annex Table C.3). Still, these growth rates fall short of those in Chile and China, India, and other Asian countries and will do little to address the pervasive rural sector poverty trends presented earlier.

**Graph 5.1. Real GDP and Annual Real GDP Growth with 5-Year Trend Line
CAFTA-DR Countries (1980 – 2006)**



Source: World Bank 2007.

Popular expectations of the effects of trade liberalization on economic growth — at least among segments of the population favorably disposed toward greater economic openness — have been higher than warranted in the light of analyses of such effects under other agreements, such as the North American Free Trade Agreement (NAFTA) and what is now the European Union. Similar generally modest effects of trade liberalization employing static models have been estimated for the CAFTA-DR countries (see Section 3).

However, based on similar trends and dynamics in the country reviews, and compared with the Chilean response to trade liberalization, if agricultural sector diversification commences at a more appropriate level, the impact of CAFTA-DR on some sub-sectors, related industries, regions, and population groups will over time be quite significant. Stated differently, based on the economic trends presented in Graph 2.1 and the analysis presented in the country reviews, trade-led agricultural diversification offers the CAFTA-DR countries the best option for: 1) achieving a high return on investment in their rural sectors; 2) stimulating a base for much-needed industrial sector growth; and 3) ensuring sustained economic growth in an increasingly competitive global economy.

Clearly, as observed in southern Mexico under NAFTA, while CAFTA-DR provides opportunity for permanent and increased access to the U.S. market, trade liberalization alone is not a panacea for significantly expanding GDP growth rates or reducing poverty. While all countries responded

boldly and over a sustained period with their policy reforms, and while fiscal and monetary policies can still be improved, in varying degrees more work is needed to improve the investment climate, governance, and other areas of social and economic policy. Additionally, however, in the context of this assessment, decades of inappropriate attention to the region's agricultural sector, and the realities of the Agreement's transition period, a dramatically urgent, increased, and different degree of attention to this sector is required if the CAFTA-DR countries are going to be able to more effectively link rural land and labor assets into the market-driven supply chains that channel higher-value crops and value-added products into highly remunerative export markets.

C. TRADE LIBERALIZATION AND AGRICULTURE

Trade liberalization has created opportunities in the CAFTA-DR countries for larger farmers and agribusinesses, but the treaty leaves a much larger grouping of small-scale producers especially vulnerable as tariff and other barriers to trade are reduced on the so-called sensitive crops (i.e., basic food grain crops that traditionally have provided subsistence if not also a source of cash income in local markets) and other products such as dairy and poultry which together serve as the principal product lines for the vast bulk of the region's producers. These crops and their related processed products are currently enjoying unprecedented price hikes that may continue in the short term. While the price hikes are a potential benefit to the relatively small number of farmers who are "net producers" of basic grains, it will become increasingly difficult, as tariffs on these commodities fall over the treaty's transition period, for uncompetitive small-scale basic grains producers to compete, if their per unit production costs exceed per unit market prices. At some point, all of the countries need to address these realities and begin to chart how trade-led agricultural diversification can be advanced during the transition period.

Since the CAFTA-DR countries appear not to have been able to generate enough higher wage jobs to absorb a rapidly expanding labor force, and have not sustained the high export growth rates achieved by the mid 1990s, this study points to CAFTA-DR as a special opportunity for these countries to reexamine the potential of agriculture, if properly nurtured and better integrated into the national economy, to generate more robust levels of job creation and economic growth. While the new strategies and plans of all countries indicate the vital importance of expanding NTAEs and related agro-industrial products, this assessment has not found actual follow-up to such strategies and plans to be commensurate with the challenges and opportunities.

The successes achieved by Chile and Costa Rica in diversifying their agricultural sectors into higher-value crops and value-added products — as well as smaller-scale, usually donor-assisted achievements in the other CAFTA-DR countries — make it abundantly clear that the countries of the region should place a higher priority on exploiting market opportunities for higher-value non-traditional agricultural crops, and value-added products derived through processing and support services. Such a focus on supporting trade-led agricultural diversification will lead to more rural jobs and higher wages, reducing the incidence of rural poverty while providing job opportunities for producers at risk of being displaced because they cannot compete in sensitive crops and products.

The perception among many policymakers in the CAFTA-DR countries that agriculture is a “declining” sector — simply because the sector’s share of GDP has indeed fallen over the long run — is no longer a reason to give it low priority in strategies for accelerating economic growth and poverty reduction. Indeed, in all the countries reviewed, the agriculture sector is increasingly comprised of primary production and value-added processing within a broader agro-industrial context that is gradually becoming one of the leading industrial sub-sectors while stimulating even more remunerative industrial and service sector value chains. Each country review documents the potential for a trade-led agricultural sector to contribute much more to economic growth, if the requisite systems can be put in place to help rural producers retool their productive assets (land and labor) to produce higher-value crops and/or value-added products for export, regional, and domestic markets.

The contrasting examples of Chile and Mexico, summarized in Section 4, provide valuable lessons for the CAFTA-DR countries. Chile’s strategic decision to diversify agricultural and broader rural development through a systematic response to trade-led economic growth has been sustained over a 30-year period across changes of political administrations. Over this period, Chile committed to and sustained a national effort to progressively strengthen the enabling environment for trade-led agricultural and rural diversification by enhancing competitiveness and exploiting Chile’s comparative advantages in land and labor. A mix of incentives and innovative institutions supported diversification, technology adaptation, and transfer of technology to producers, and facilitated links with agro-industries, adding value to raw agricultural products. Special incentives and support services were focused on addressing the needs of small and medium-sized producers. Agricultural production, despite its low share of GDP (in 2005 only 5 percent in current prices and 6 percent in constant 2006 prices),⁹ has been a major driving force in Chile’s strong overall economic performance since the early 1980s, because the country has improved sector productivity by developing increasingly remunerative backward and forward linkages between the agriculture sector and the services and manufacturing sectors. It also has helped reduce the incidence of poverty to the lowest levels in Latin America and the Caribbean, from 38.8 percent of the rural population in 1990 to 20.0 percent in 2003, while the incidence of extreme poverty over this period fell from 15.6 percent to 6.2 percent (UN-ECLAC 2006b).

Mexico, on the other hand, responded to NAFTA by providing mainly compensation payments to basic grain growers trying to compete with progressively cheaper imports from the United States. Little sustained attention was directed during the transition period to confront the underlying constraints on the agricultural sector. The payments, however, had the effect not only of enabling producers to stay tied to these crops, but also of doing little to enhance their productivity or their capacity to shift their productive assets into higher-value crops and/or value-added products that could be competitively marketed to the United States and Canada. As a result, Mexico’s poor southern states have made little progress in economic growth and poverty reduction, resulting in continuing and increased northward migration. Further as the date (January 2008) approached for tariffs on imported U.S. grains to fall to zero, large numbers of Mexico’s extensive producer organizations, apprehensive that the situation would only worsen, began street demonstrations and were meeting with national congressional leaders to push for Mexico to mount a major rural assistance plan or renegotiate NAFTA.

⁹ Calculated from data in UN-ECLAC (2007b).

The studies reviewed in Section 3 of the anticipated effects of CAFTA-DR on agricultural production and rural poverty, all of which employed static methodologies of CAFTA-DR's effects on the five Central American countries, suggest that the overall impact of the treaty (by itself) on the region's agricultural sectors will be relatively small. For producers of some crop and livestock products (which vary from country to country), the effects are expected to be negative. However, because of the limited value-added growth observed in the industrial sector and the competitiveness realities associated with increased globalization, the transition period provides Central American countries and the Dominican Republic with a special opportunity to undertake the policy reforms and investments now needed to unleash these countries' potential to successfully adapt and apply key elements of Chile's trade-led agricultural diversification model. Mexico's experience demonstrates the results not only of implementing the wrong policy, but also of failing to make the needed reforms and investments.

For the CAFTA-DR countries as a whole, the most significant lesson is that taking full advantage of the treaty's potential benefits will require much more than trade liberalization. Faster progress in reducing rural poverty will require more systematic and targeted market-based assistance to small-scale producers, as well as cooperative efforts between the public and private sectors to stimulate value chains to link these producers to the manufacturing (value-added agro-processing and agro-industry) and services (e.g. shipping, transport, finance, genetics, marketing etc.) sectors.

D. TRADE LIBERALIZATION, RURAL POVERTY, AND AGRICULTURAL DIVERSIFICATION

The country reviews highlight the structural difficulties associated with reducing poverty due to the long-term consequences of limited off-farm employment opportunities, limited support to improve market-based productivity improvements, and long history of declining commodity prices. In spite of out-migration and remittances, rural family income growth is limited, and rural dwellers' frustrations mount to include high levels of family separation, drug trafficking, and environmental degradation. While all countries recognize that, in concept, non-traditional products and related agro-industry are potential growth poles under CAFTA-DR, in practice the agricultural sector remains insufficiently equipped to respond.

The implications for public policy are similar to those noted with respect to the impact of trade liberalization on macroeconomic performance and agricultural production: taking full advantage of CAFTA-DR's potential benefits requires a wide range of complementary policy measures, institutional reforms, and financial and human resource investments in the agricultural or broader rural sector. For too long, the sector has remained highly politicized, insular and uncompetitive, typically producing commodities with low prices and low value-added as a result of lingering import substitution structures. Also, rural conflicts in some countries and mismanaged land reform have contributed to agriculture's significant de-capitalization in financial, infrastructure, human and institutional terms, further weakening the capacity of countries to take full advantage of the market opportunities available not only under CAFTA-DR, but also globally.

E. KEY CONSTRAINTS TO REDUCING RURAL POVERTY THROUGH TRADE-LED DIVERSIFICATION

This study has revealed that the CAFTA-DR countries are currently not using the land and labor endowments of their agricultural sectors to compete and gain in the emerging global agricultural marketplace for higher-value crops and value-added products. Too much of the region's work force is tied to low agricultural commodity prices and related low wages with no visible change in sight. These countries can improve their economies by accelerating their diversification out of basic grains and into higher-value crops and value-added products sold into supply chains that feed into local, regional, and export markets. However, to do so, the CAFTA-DR countries must begin to act quickly to overcome a number of policy, institutional, and investment obstacles — and sustain a commitment to the needed reforms and investments over an estimated 10-15 year period. As demonstrated by Chile's experience, such obstacles can only be ameliorated when a country makes a sustained commitment over time to channel public and donor investments into building the enabling and support environment that will stimulate increased private sector investment.

CAFTA-DR offers the signatories the historic opportunity to focus on developing a consensus on and national "ownership" of strategies and programs to diversify the agricultural sector. This will not be easy due to fiscal realities. However, if appropriate national commitments are advanced, and over time increased public sector support committed to trade-led agricultural diversification, international donors could support that initiative by increasing and targeting their assistance to complement and leverage public and private resources aimed at accelerating the process of trade-led agricultural diversification. Such a partnership would contribute significantly to assisting producers, agribusinesses and agro-industries, and related financial institutions, to confront the risks and uncertainties associated with making enterprise shifts. With this support, and as value chains grow and generate profits, success will breed further private investment and the expanded political support base essential for facilitating national economic transformation.

For this process to evolve, stakeholders must break from decades of inappropriate support around old era mindsets, related protectionist superstructures, and budgetary neglect, and begin to focus attention on confronting the challenge of how to foster an appropriate enabling environment, finance the investments in public goods needed to establish a strong support base and political constituency to mobilize private sector investment. Given the growth potential, some of these gains will be facilitated via public-private partnerships that support targeted investments in public goods, perhaps through "check-off" systems on exports along the lines used in other countries. Such an approach or other creative means can contribute to help ensure the sustainability of investment and operating costs.

Some of the key constraints and challenges for advancing the required agenda and processes are summarized below.

Small and medium-sized producers view themselves as possessing limited capacities and information relevant to the special needs and opportunities of CAFTA-DR and other trade agreements. Most producers contacted expressed uncertainty, fear, and sometimes despair, while some expressed a view of great opportunity. Most have grown only subsistence food crops (e.g., beans and corn, and in the Dominican Republic, also rice) and have no experience with

producing for export. They view themselves as vulnerable due to limited understanding of the Agreement, low risk tolerance, limited or no access to the new technologies required, limited capacities to confront economy-of-scale requirements to supply buyer needs efficiently, and great distances to the actual end buyer. They are aware of their limited competitiveness relative to U.S. farmers whom they view as recipients of key subsidies and basic services supporting production levels that will easily “flood” national markets. They also recognize the “disconnect” between decades of neglect or inappropriate attention and the assistance they now need to take advantage of today’s new market opportunities and challenges.

Nonetheless, some who had experienced successful export sales (in many cases as a result of donor-funded assistance) or who are aware of the potential for increased income, are eager to participate to the point that some can see bright futures for their children from growing high-value crops and/or producing valued-added products through agro-processing. However, to realize this potential, they opined that a transformation of the production and business structure is needed to address numerous constraints related to productivity enhancement. While most spoke to the need for expanded agricultural support services and strengthening of the related enabling environment, they also spoke to the need for education and health services and, most notably, investments in productive infrastructure.

A related topic expressed by this large and increasingly vocal group was the poor information they have received, especially regarding the application of the Agreement’s key provisions. While they also expressed an appreciation for the need to diversify, the question of how remains unanswered for far too many small and medium-sized producers.

Small and medium-sized producers generally do not have access to critical technology, timely information, and related basic skills essential for enhancing labor and land productivity—and all spoke to the key need for SPS systems to gain market access.

Stakeholders noted deficiencies in technology development, outreach, and skills training. Generally speaking, this traditional public sector service has eroded to the most minimal levels, while university professional training and vocational skills services have also been reduced or abandoned. A small number of NGOs have gained some important experiences to enhance competitiveness and sustainability (i.e., eliminate traditional dependencies) as, for example, in Honduras under the Rural Business Development Foundation (FUNDER). There was a common expectation that the private sector would help to fill this void, but this is seldom seen. One positive illustration of the potential for small and medium producers was observed in Nicaragua, where *Agropecuaria LAFISE* introduced a highly innovative technical/financial/marketing support system to assist producer’s capacities to fill export orders across numerous product lines. While other positive cases could be mentioned (see Volume II also as summarized in Section 2, C), only a limited number of small-scale producers throughout the region have access to essential support services related to new crops varieties, and production practices; greenhouse and drip irrigation system management technologies for new crop lines; post-harvest technologies; food science; food safety; and basic farm budget, farm management, and related entrepreneurial skills required to respond to market-based productivity and competitiveness demands.

One of the greatest concerns expressed was the region’s weak sanitary and phytosanitary (SPS) system. A commonly expressed concern was the risk of increased detention of agricultural crops

exported to the United States due to inadequacies in inspection systems, laboratory facilities, dairy or plant sanitation practices, regulatory systems, and infrastructure such as slaughterhouses or meat processing plants. In varying degrees, the CAFTA-DR countries are strengthening their SPS systems to include expanded laboratory facilities with the support of donor and development assistance partners such as the IDB and the USDA. However, appropriate staff support, training, and professional development still needs to be provided to address remaining capacity building needs, especially in helping small producers to comply with SPS requirements.

An additional challenge beyond these core technology and knowledge requirements is the multifaceted environment of essential support services to mobilize capital and reduce much larger risks associated with trade-led agricultural diversification. Most participants advised that the essential complementary services to assist producers and enterprises to capitalize on CAFTA-DR are not in place. To generalize, except in some small-scale project activities, little has been advanced in many critical areas. Commonly expressed under-attended needs relate to key services such as:

- Advancing and regularizing land titles
- Installing and/or upgrading requisite agro-support infrastructure (roads, telecommunications, irrigation, etc.)
- Developing market and product promotion as well as intelligence support services
- Advancing the new “associative” and related business structures to confront the economies of scale requirements facing scattered small-scale producers

National governments as well as donor and development assistance committed to CAFTA-DR serving as a catalyst for trade-led agricultural diversification will need to give special analytical attention to addressing these (and likely other) basically unattended support areas critical to enhancing land and labor competitiveness. Serious strategic and creative thinking will be required to identify ways to address these key needs.

A notable constraint exists with respect to the need for private investment and accessible financial services. Given the significant farm, SME, and agribusiness enterprise shifts that must occur to generate improvements, capital will need to be mobilized to finance the farm- and firm-level investments required for enterprises to reallocate land and labor into the production and marketing of higher-value products. Investment examples include land preparation, irrigation, green houses, milking stations, product sorting and food processing plant and equipment.

The import substitution period witnessed a plethora of subsidized support activities to facilitate access of farmers to input supply, product marketing, and supervised credit. During this period, the significant participation of the national governments in these services, often with donor support, was not conducive to creating an environment sufficiently attractive to private investment. In the 1990s, with the introduction of the macroeconomic adjustments and related fiscal reforms, the increasingly inappropriate public sector support activities advanced under import substitution were, in varying degrees, reduced and even eliminated or, in some cases, replaced with donor-supported private sector pilot initiatives that, in many cases, withered or collapsed. Since then, absent a market-based enabling environment and support structure commensurate with the new economic paradigm, private sector investments in the agricultural

sector have been limited when contrasted to market opportunities. For example, in the Dominican Republic, the private banks account for only 3 percent of the investments and financing in the agricultural sector. At the same time, the institutional base for urban-based micro credit created during the 1990s has not expanded into the rural sector.

While investment opportunities abound for trade-led agricultural diversification to be profitable, there is a dearth of institutional credit purveyors. The situation is further complicated due to the limited presence of land title and related loan collateral mechanisms, high interest rates that are typically associated with financing long-term investments (e.g. fruit trees), and the tendency of established institutions to focus on short-term, consumer-based lending. While this framework is not conducive to mobilizing investment, all countries possess some active public or private sector efforts to promote FDI. Examples such as CETNROLAC and Eskimo in Nicaragua are illustrative of such investments and their potential. However, to generalize, foreign and national-level investments in the agricultural diversification area have been minimal. This trend will likely continue unless an appropriate support framework is advanced along with a complementary institutional credit and financial support mechanism responsive to new opportunities.

Producers and agribusinesses expressed the need for a national vision and appropriate framework to begin to structure and efficiently harness public, private, and donor investments critical to advance trade-led agricultural diversification. While some initial work has been advanced by ministries of agriculture, and some general activities have been articulated in the National Action Plans (NAPs) for Trade Capacity Building, and still other sector-related work is articulated in the new “*agenda complementaria*,” most key private sector actors feel that a national – and long-term – commitment to a program framework for trade-led agricultural diversification is greatly needed. Rarely are the key support elements, some of which are mentioned above, brought together. Further, the various strategic and planning documents reviewed were short on detail and reflected only the perspective of a current administration, with such documents all too often being discarded by the latest incoming administration. Little to no attention is given to the actual urgencies and seriousness of the transformation of the economic structure required over time to compete and gain under the Agreement. How the new resource levels urgently required are to be mobilized, during a time when such support is in considerable decline, has not been resolved. While all initial plans spoke in priority terms regarding agro-industrialization, seldom was this process defined in terms of a strategy and program to begin to mobilize appropriate resources and attend to major limitations.

Except for Honduras’s National Policy for the Agricultural, Agro-industry, and Rural Sectors (2004-2020), no long-term plans for rural diversification have been articulated by national stakeholders nor their donor and development assistance partners. While little progress on implementing this strategy was observed, the strategy does articulate the specific agro-support services and infrastructure required for the country’s rural sector to contribute to and benefit from trade-led agricultural diversification.

Ministries of Agriculture and related support agencies have been slow to mobilize the new era public/private support structures essential to advance trade-led agricultural diversification under CAFTA-DR. Producers expressed a generally low degree of confidence

in their governments' capacities to provide relevant market-based public good services. They spoke to the erosion over the last 15 years of the technical capacities of the region's ministries of agriculture and other agriculture-related technology and support institutions such as agricultural research centers, as well as SPS and information outreach services.

The significant declines in the technical staffs of these organizations were repeatedly noted as well as critically needed policy and planning skills in key technical areas to help the business community and producers and agribusinesses understand how they might respond to market opportunities. Many observed the urgent need to commence market-based upgrading and modernizing of relevant technical capacities, either within the ministries or the private sector such as within producer associations or other private sector organizations. They also expressed the need to strengthen sector analysis and planning to: 1) better identify macro/sector policy complementarities to enhance competitiveness by exploiting inter-sectoral linkages based on comparative advantages; 2) formulate strategies for addressing possible adverse consequences of monetary and fiscal policies and pressures from complex vested interests; and 3) promote laws and regulations that stimulate competitiveness.

Increasingly over the last decade, ministers of agriculture have exerted less influence on national economic agendas and are not afforded a central point of influence in government deliberations about how scarce public monies are to be spent (*De Ferranti et al. 2005*). Moreover, they often have been reluctant to champion a trade-led growth strategy, all too often responding instead to lingering import substitution era pressures from increasingly sensitive sectors to meet food security or food self-sufficiency goals (e.g. Honduras's *Plan Maíz* to enhance maize productivity).

However, if governments become sufficiently committed to trade-led agricultural diversification, donor support (which has declined notably over the years) needs to be appropriately targeted (if not also increased) to assist the CAFTA-DR countries in making the necessary policy reforms and investments.

Informants expressed concern about the gradual exodus of key donors from the sector and the primordial need to confront the lack of national technical and financial support to fully tap agriculture's potential for contributing to trade-led economic growth. Government officials commented on the once strong donor-supported technical presence and assistance that was targeted on institutional, policy, and technical development and also, curtailing long-term training programs for advanced degrees, leading over time to an overall reduction in technical capacities within ministries of agriculture and other agriculture-related public institutions (e.g., research and extension). Informants opined of the special seriousness of today's challenges, while also noting that national capacity levels are seriously weak. Further, some stakeholders fear that the Inter-American Development Bank (IDB) will withdraw from rural development activities now that the Millennium Challenge Corporation (MCC) is providing grants to support large projects in the rural sector. The MCC has quickly become the key source for productive sector rural investments but has only minimally linked these investments to a national trade-led agricultural diversification effort, with MCC Compacts geographically focused on a specific sub-region of an assisted country. Donors also were criticized for having a short-term perspective, not being concerned with project sustainability after donor support ends, and doing little to help

countries address the paramount and complex need to enhance national competitiveness. The need for greater relevance and support responsive to these new national needs and priorities in a weakened sector was a common perception shared. Informants consistently noted USAID's ever-declining presence in the sector.

F. KEY STEPS TO ACCELERATING TRADE-LED AGRICULTURAL DIVERSIFICATION

While this assessment points to the need for the CAFTA-DR countries to accelerate progress toward using trade as an engine for diversification of these countries' agricultural sectors, the challenge for each country lies in identifying what steps would be most effective in accelerating progress on the path to trade-led agricultural diversification. To assist the CAFTA-DR countries in addressing this challenge, this section identifies potential steps that could assist each country to accelerate its progress toward using trade to accelerate the agricultural diversification process.

The steps outlined below are based on the key constraints and issues identified by this study as being most critical to nurturing the development of trade-led agricultural diversification as a driver for economic growth and poverty reduction. While the impetus here is to more quickly advance competitive-based job growth by positioning critical land and labor endowments, these can not be conceived in a vacuum oblivious to the recent price hikes and pressures to respond. For example, currently South Africa will be expanding by 8% its land area under cultivation, while cereal production will be expanded in Zambia, Mali, and India. At the same time, in Mexico, China and Argentina, food price controls have been introduced (IFPRI 2008). Last year 23 counties planted biotechnology crops, including 12 developing countries, raising global plantings by 12 percent from 2006 to cover 114.3 million hectares (Blas and Wiggins 2008).

These steps are offered to assist leaders in the CAFTA-DR countries to articulate and build national consensus on — and ownership of — a strategic vision for and an operational program to advance trade-led agricultural diversification. They are also offered to assist governments and elected officials to better review, prioritize, and where needed, reallocate and expand public expenditures commensurate with the new opportunities in the rural sector. These steps, if taken in the sequence that is most appropriate for each country, will help the CAFTA-DR countries put in place an enabling environment that more effectively attracts the increased public and private sector investments that will be needed in order to advance rural job and wage growth on a sustainable basis.¹⁰

Foster discussions to build consensus on a national vision and long-term commitment for optimizing the benefits of trade-led agricultural diversification. A key step in each country would be to foster opportunities for the public sector and the private sector to discuss how trade-led agricultural diversification could be supported and accelerated. It is essential that these discussions include the participation of representatives from the private sector who are most actively — and successfully — engaged in the production, processing, and marketing of higher-value crops and/or value-added products. Such key market participants have a solid base of knowledge of market opportunities and the constraints to being competitive in those markets.

¹⁰ To assist CAFTA-DR country-level policymakers and their partners, private sector leaders, USAID missions, U.S. government agencies, and other donors more directly, more detailed country-specific steps (or recommendations) are presented in Section H of each country review presented in Volume II.

Potential agenda items for discussion include identifying needed complementary policies, regulations, and tax and fiscal policies that would provide the incentive structure to mobilize producers and investors to participate in a national effort and program to accelerate trade-led agricultural diversification. Such a public-private sector discussion would need to address key weakness areas, including policy and strategic planning, technology development and outreach, plant and animal health, food safety, credit and investment, human capacity building, and public investment in rural infrastructure, rural education, and rural health. Broader, more market-responsive institutional structures than traditional ministry of agriculture and trade association models require careful reflection, appropriate response, and special attention and care.

Some of the more critical issues that merit discussion – and would need to be addressed in articulating a vision and strategy for trade-led agricultural diversification – include the following:

- Expected shifts in and out of productive activities by farm, ranch, and dairy enterprises
- Potential consequences and quantification of the benefits and other tradeoffs from such enterprise and sub-sector shifts
- Market opportunities, including domestic and regional markets, and new technologies (e.g., food technologies and processing)
- Analysis of illustrative production costs for sensitive products to reveal what is necessary to be competitive
- Use of improved varieties of basic food crops to help meet food security needs as land previously used for food crops is shifted into more remunerative crops or enterprises
- Availability and diversity of off-farm jobs as the process of agricultural and broader rural diversification expands
- As appropriate, facilitating supporting linkages to expand domestic production of non-cereal products as incomes improve and strategic links are made with the ever-increasing presence of the supermarket industry
- Outreach (extension) mechanisms to incorporate small-scale producers into agri-business value chains in ways that overcome economies-of-scale limitations and facilitate the transfer of technology to them
- New public and private sector programs to help producers capture economies-of-scale benefits in purchasing inputs and selling products, among others
- Safety-net programs that might support and facilitate rural diversification

Donor and development assistance organizations could use their good offices to provide support for the nurturing of the above-described national-level discussions and related follow up.

Strengthen policy analysis and strategic planning. As countries implement CAFTA-DR, strong policy analysis and strategic planning capabilities to help frame and advance trade-led agricultural diversification. While such capacities need strengthening in both national governments and the private sector, the process should take advantage of the expertise and support that agri-businesses could provide. Here, national governments and the private sector could benefit by establishing a process for the public and private sectors to collaborate in policy and strategy discussions, and by including competitiveness councils in the discussions. Key functional areas to be addressed and services to be provided include:

- Sector policy analysis, to help ensure consideration of appropriate tradeoffs
- High-level budget planning and program development, to mobilize necessary budget support
- Comparative production cost analysis to focus on key traditional and NTAE products, including product shifts and appropriate value-added interventions
- Periodic monitoring of rural households to assess income and livelihood shifts during the transition period
- Guidance to donors, to assist in coordination and strategic and programmatic design and financing
- Strategic guidance and support to advance agro-industrialization
- Outreach information and seminars on important cutting-edge issues related to rural diversification

Design and implement a CAFTA-DR outreach message campaign. While some general information about CAFTA-DR has been widely circulated, a credible and effective campaign is needed to respond to the strongly held but erroneous positions advanced by political opponents about the treaty's alleged impact on rural areas. Such an information campaign would: (1) explain the nature and purpose of the transition period, tariff rate quotas (TRQs), and other relevant information; and (2) provide positive case studies of small and medium-sized producers who are successfully diversifying and competing. User-friendly materials and clearly understood radio messages would highlight prospects for expanding well-established exports and include information on profits and costs associated with these products. The campaign might also note that more rapid economic growth will shift food consumption patterns toward higher-value fresh food that often can be produced locally and marketed to the expanding supermarket industry, thereby reducing risks associated with exports. For example, around 2005, supermarkets met 50 percent of total food needs in Costa Rica and El Salvador, while they met 35 percent and 20 percent of food needs in Guatemala and Nicaragua, respectively. This industry's inherent product centralization and consolidation structures, designed to respond to national and inter- and intra-regional opportunities, provide the region with notable production and second-stage processing opportunities (Reardon 2007).

Review and strengthen technology development and outreach systems and networks. The CAFTA-DR countries face the issue of how to develop and maintain science and technology (S&T) capacities that will help their agricultural sectors access, adapt, and apply production and processing technologies, including those required to meet international production and post-harvest standards, so that producers can become and remain competitive in global markets. Currently there is low installed S&T capacity, even for the traditional basic grains. At best, most countries have achieved only low levels of sustained productivity gains. Most notably, little to no attention is being directed at the productivity requirements of priority non-traditional product lines. Particularly important areas needing systematic upgrading relate to priority fruit and vegetable cultivation, greenhouse management, soil and water conservation and management, integrated pest management, post-harvest and food science technology (the key element for amassing value-added employment generation), cost monitoring systems, and farm and business management.

Related to this process and the broad human capital limitations observed at all levels, investment also is needed in two key complementary service areas:

- Mechanisms for transferring technology and know-how to all participants in value chains, especially for engaging small-scale producers, with an emphasis on crops for which such transfer has traditionally been neglected. Such mechanisms could include public services, complementary services from the private sector, special training or training-of-trainers, topic-specific short courses, vocational training, certification programs for NGOs and private sector providers, training guides for best practices, and field days and incentives for larger agribusinesses to provide extension services to smaller producers.
- Food security and enterprise diversification assistance is needed that focuses on high-yielding basic grains, enabling producers to meet food security needs on less land, thus freeing land for other, more remunerative crops. These activities also can be reviewed in terms of the capacities of the existing regional centers of excellence such as the Honduran Foundation of Agricultural Research (FHIA), the Pan American Agricultural School (Zamorano) in Honduras, the *Centro Agronómico Tropical de Investigación y Enseñanza* (CATIE) and Universidad EARTH in Costa Rica, and the *Instituto Superior de Agricultura* (ISA) in the Dominican Republic.

Strengthen plant and animal health and food safety systems. A frequently mentioned concern is that some exports to the United States do not gain entrance because of failure to meet sanitary and phytosanitary (SPS) standards. This concern permeates an already skeptical audience even as all of the countries have been making progress on upgrading their SPS systems. Both the IDB and USAID (under the regional Initiative for Improved and Harmonized Agricultural Statistics and Sanitary-Phytosanitary Regulatory Infrastructure in Central America) are providing SPS-related technical assistance and training. While private sector and public sector institutional capacities are being strengthened, exporters are concerned that efforts are yet inadequate. Some countries are exploring the possibility of providing certified product pre-inspection services for companies, to help reduce risks and costs prior to shipment. However, since it is critical that SPS issues not result in detentions or delays in the delivery of agricultural exports to buyers, the U.S. and its CAFTA-DR partners should more aggressively expand their efforts to identify how SPS capacities can be upgraded through training, technical assistance, and operational improvements. This step also takes on special importance in light of the recently highlighted problems with the safety of imported foods, as highlighted in the proposal by U.S. President Bush to implement a new product certification system requiring U.S. inspection prior to actual shipment.

Expand the human capital base. As with all sectors, today's agribusinesses rely heavily on technology and know-how. Throughout the region, many of those interviewed noted with concern the paucity of high-level trained professionals and the limited know-how at all levels, to include the primary production base. The last major investment by USAID to provide training at the post-graduate level in the CAFTA-DR countries occurred in the mid-1980s. All interviewees admitted that today's agenda is much more complicated than that of a couple of decades ago, and leaders are asking, "Where is the next generation of cutting-edge human capital that we need at this most critical period?" While there has been limited to no donor support in this area in recent years, the Government of the Dominican Republic, out of necessity, allocated scarce public funds to support graduate training for Dominican students. Renewed donor support would

significantly strengthen human capital. Across the board, there is a strong demand for post-graduate degrees from U.S. universities in plant and animal biotechnology, plant pathology, integrated pest management, agro-ecology, agricultural economics, food technology, food safety, international commerce and information systems, agribusiness, forest products, and farm management. For farm associations, service organizations, and other levels of the value chain, enhancing skills and know-how is imperative for continued and increased competitiveness. In this regard, the CAFTA-DR countries should look for opportunities for agri-businesses and education and training institutions to collaborate on ways to make education and training curricula more relevant to helping students to acquire the knowledge, skills, and experience that agri-businesses are looking for in prospective employees.

Improvements in the quality of rural primary and secondary education (general and technical) can also facilitate agricultural diversification by making it easier for farmers to understand new technologies, risks, and opportunities. Upgrading the number and quality of graduates from educational institutions also expands the pool of talent from which agribusinesses can recruit skilled workers to fill jobs that will become available as the process of trade-led agricultural diversification accelerates and the volume of agricultural products increases.

Improve and expand rural infrastructure, financing investments with both public and private resources as well as donor funds. The rural areas of the CAFTA-DR countries suffer to varying degrees from deficiencies in rural infrastructure, particularly roads, energy, irrigation, potable water and sanitation (important for helping to meet food-safety standards), and telecommunications. For rural infrastructure generally, governments, private sector groups, and donors could cooperate to: (1) convene national-level task forces to identify and prioritize those infrastructure investments that would best support trade-led agricultural diversification; and (2) identify potential public, private, and donor sources of financing, such as perhaps from ongoing MCC Compacts. In Central America, regional cooperation on infrastructure is also important, since some infrastructure projects can affect more than one country. This topic can begin to be articulated as a component of each country's strategy and program for trade-led diversification.

Improve the availability of and access to financial resources in order to facilitate farm and agro-processing enterprise shifts. Given the high risks implicit with agricultural diversification and prevailing sector de-capitalization, an improved institutional base will be needed to support the farm- and firm-level investments and financing required for enterprises to reallocate land and labor resources into the production and marketing of higher-value crops and products...

It is important to note some of the numerous productive ideas observed throughout the region that offer promising prospects. These demonstrate considerable potential for more strategic promotion and possible "scaling up" to capitalize on the numerous opportunities now emerging. For example, as elaborated in Volume II on Nicaragua (Section F), a regional investment banking company known as *Agropecuaria LAFISE* has developed production and market credit and related support services to expand value chains with hundreds of producers along key value chain product lines. Critical support services to include production and marketing credit are provided in response to the growing export opportunities and Nicaragua's nascent, but improved competitiveness base around lower land and labor costs.

Volume II's chapter on the Dominican Republic (Section H) highlights an innovative NGO micro finance institution, FONDESA, which has 15 years of experience in the rural sector and has achieved outstanding results in facilitating credit to small producers and SMEs for trade-led agricultural diversification investments. Further, the related positive experiences of Fintrac Inc. in Honduras and El Salvador as well as of IICA in Nicaragua and El Salvador in vegetable and fruit production and sales, demonstrate the positive returns from making critical financial investments in the agricultural sector. In the Dominican Republic, in response to credit management and supervisory costs and operational difficulties universally associated with small producer credit programs (because of economy-of scale realities), Chemonics, via IDB and USAID funding, has developed product-specific "clusters" that provide alternative institutional approaches to help finance productive ties with significant numbers of small producers.

In the context of this study's objectives, these examples serve to illustrate that there is a need for competitive-based institutional structures and support for long-term investments and working capital needs. Further, absent an adequate support base to reduce risks associated with the production and marketing of highly perishable products, and recognizing the almost endemic level of climatic and natural disasters that occur in the region, crop and farm enterprise insurance programs become critical. Additional ideas include insurance or risk-reduction programs that support the long-term equipment and infrastructure requirements of some non-traditional agricultural crops and market-based technical services.

Recognizing the need for and challenges to expanding the availability of finance for agricultural investments in support of trade-led agricultural diversification, the CAFTA-DR countries as well as donor stakeholders might initiate a specialized analysis and strategic planning effort in which a team having private agribusiness banking expertise would undertake a region-wide review to assess current needs and agricultural finance structures, with a view to identifying innovative approaches to providing effective models for financing trade-led agricultural diversification at the enterprise level and along value chains. Attention also could be given to identifying promising enterprises and value chains that could be "scaled up" if innovative financing could be made available. Finally, given the considerable investment opportunities in trade-led agricultural diversification afforded under CAFTA-DR, attention also needs to be given to how information about these opportunities can be shared with private sector investment institutions, and how development instruments such as USAID's Development Credit Authority (DCA) might be used to provide an incentive to such institutions to invest more aggressively in farms and firms seeking to shift into higher-value crops and value-added enterprises.

Harness donor resources within the context of a long-term strategic framework for trade-led diversification. While many officials interviewed for this study lamented the scarcity of donor grant funds, particularly to meet growing development challenges, the influx of MCC funding reached a few of the countries at a most fortuitous moment, and in some countries has directed some attention to complement trade-led agricultural diversification needs. However, all interviewees opined that today's period of great uncertainty and opportunity will require rapid adjustment — and coordinated public, private, and donor support — with a more strategic focus, particularly during the critical startup period. At present, too little is being done — and at too slow a pace — to develop the competitive advantages so vital to stimulating and sustaining job growth by adding value to agricultural products through processing and other activities.

Given the critical need to reduce investor and producer risks, donor projects must be targeted around national programs to stimulate long-term commitments and to create the essential support base for growth in this area that has not received adequate attention in recent years. Such efforts can lead to greater leverage and impact, as in the Dominican Republic, where a highly regarded USAID effort is supporting the expansion of the “cluster” model to a larger number of producers. In Honduras, this need is being institutionalized by the G-16 donor coordination process, through which an agro-forestry working group meets regularly at the technical level to review and facilitate program harmonization, and ambassadors meet semiannually with the president of the republic. Other countries in the region should aggressively and systematically find their own ways to rally donor resources around strategic visions and action plans for trade-led agricultural diversification — and help forge the necessary support mechanisms and institutions in a manner commensurate with this historic moment.

Facilitating role for the CAFTA-DR Trade Capacity Building Committee. Given the reduced attention, if not neglect, that governments and donors have given to the agricultural sector in recent decades, it is recommended that the issue of bringing increased attention to the need for accelerated trade-led agricultural diversification become a focus of discussion by the established CAFTA-DR Trade Capacity Building Committee. The committee’s charter could position it to be a facilitator across a broad range of actors including public-sector (trade, agriculture, finance) officials, the private sector, and other donors.

Foster increased attention to and coordination of support for agricultural diversification within the donor and business communities at the Washington, D.C. level and by the United States and bilateral partners at the country level. Respectful of the objective of this assessment to stimulate national ownership of a trade-led agricultural diversification strategy, and recognizing the sensitive and sector-specific structural issues that each country will need to confront to advance such a strategy, serious consideration needs to be given as regards what kind of high-level support could assist the CAFTA-DR countries in articulating and advancing the necessary reform agenda within each country. Sustained economic and social progress can only evolve based on serious national commitments to implement and sustain the range of reforms and investments that this study has highlighted as most urgently needed. While the treaty creates a truly historic opportunity for trade-driven economic growth, its time-bound transition period presents the CAFTA-DR countries with the challenge of how to most effectively use this period to make the reforms and investments that will be needed in order to transform these countries’ agricultural and rural sectors into market-linked engines for economic growth.

Given the nature of the study’s findings, the U.S. government should consider how best to foster multi-country, donor, and development assistance cooperation to support the efforts of the CAFTA-DR countries to formulate and implement a trade-led agricultural diversification agenda. The lessons learned from Mexico under NAFTA and the capacities and trends observed throughout the CAFTA-DR region indicate that a great deal of effort will be required over a prolonged period that implicitly transcends administration terms. Based on these findings and the realities associated with a rural sector long neglected, the CAFTA-DR objectives so vital to all stakeholders, will not be accomplished unless major actions are taken during the Agreement’s transition period to confront the challenges facing small producers. CAFTA-DR presidents,

working with reform-oriented business and political leaders to advance a national long-term vision and strategic framework, would greatly benefit from a complementary support base. To systematically inform and help advance such a collaborative agenda within the CAFTA-DR region, a potential special support mechanism could play a vital role in helping to ensure at the highest levels — national governments, civil society, donors, and development assistance organizations — that the appropriate strategies and structures are being advanced, appropriate resources are being provided, valuable lessons learned are being identified and shared, regional centers of excellence are being utilized, and, where needed, the appropriate political level discussions on sensitive issues are being advanced. The region can ill afford continued sub-optimal growth from any of the CAFTA-DR signatories (the U.S. included), hence due attention should be given to assisting the CAFTA-DR countries to systematically advance the new era agenda required to support trade-led agricultural diversification.

As considerable technical and financial support will be required to accelerate the agricultural diversification process, intensified coordination among donor agencies would help sustain focus on the need for increased funding support and ensuring that resources are invested so as to have maximum impact on accelerating trade-led agricultural diversification. The CAFTA-DR countries' national action plans (NAPs) for trade capacity building could serve as a tool to harness and shape future assistance efforts. As a follow-up step to this study, USAID's LAC Bureau should provide leadership, in partnership with the Office of the U.S. Trade Representative, to foster a discussion of this study within the U.S. government interagency process (including, as participants, the U.S. Executive Directors of the IDB and World Bank), with the objective of articulating an action agenda for coordinated and sustained follow-up by stakeholder U.S. government agencies and the multilaterals. The desired outcome would be a much more focused effort on the part of donor and development assistance organizations to assist individual CAFTA-DR countries in articulating country-level efforts to: (1) formulate and launch national strategies and programs for trade-led agricultural diversification; and (2) mobilize complementary public, private, and donor resources to implement those priorities and programs.

G. CONCLUDING REFLECTIONS

The major overarching conclusion emerging from this assessment is that the CAFTA-DR countries are not well prepared to capitalize on the significant opportunities that the treaty affords for trade-led agricultural and broader rural diversification. The study highlights a number of areas in which donors, development assistance organizations, and agribusinesses could and should be doing more to cultivate trade-led agricultural diversification as a catalyst for economic growth and poverty reduction. Unexploited opportunities for trade-led agricultural diversification hold great potential to help mitigate pressures on significant segments of the rural population as tariffs decline and competitiveness pressures grow. Within the new and uncertain economic structure now evolving, wherein systemic, trade-based reforms and investments are greatly needed, failure to aggressively launch needed reforms and investments in support of trade-led agricultural and broader rural diversification will only increase the severity of poverty and associated social problems among some segments of the rural population.

To help the CAFTA-DR countries seize the potential for trade-led agricultural diversification to drive rural economic growth and poverty reduction, this study has sought to inform, focus, and excite CAFTA-DR stakeholders as they discuss opportunities with partners, build consensus on

needed reforms, and implement a prioritized plan to leverage and invest resources to facilitate a smooth and successful transition to liberalized trade in ways that expand opportunity for the rural poor, notably small-scale farmers, to participate in and benefit from trade-led agricultural diversification. In this context, given the growing attention required by the global food price hikes, this study offers information to help mobilize many key elements of short- and medium-term national responses that effectively could complement CAFTA-DR's objectives and national-level economic growth priorities.

The long-run success of a trade-led agricultural/rural diversification strategy will require more than measures directly related to agricultural production, enterprise transformation, and job mobilization. Other necessary components — discussed only briefly in this study — include improving rural health services and education; strengthening infrastructure (roads, energy, irrigation, telecommunications); ensuring that investments are made in an environmentally sustainable manner; and strengthening the macroeconomic, microeconomic, and institutional components of the overall enabling environment for “doing business.” Further, complementary productive activities related to ecological tourism, handicrafts, rural-based assembly and manufacturing, and a variety of services in addition to tourism have an important role to play. Such rural-based enterprises, if effectively linked to market opportunities along value-added supply chains, hold potential to contribute both to national economic growth and rural poverty reduction. Market opportunities exist not only under agreements such as CAFTA-DR but also in growing niche markets within the burgeoning global marketplace as evidenced by the numerous other FTAs that the CAFTA-DR signatories continue to embrace.

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ANNEX B. LIST OF INTERVIEWEES

Regional		
Name	Title	Affiliation
Public Sector		
Mary Ott	Director, Office of Economic Growth	USAID/EGAT
Tracy Quilter	International Trade Specialist	USAID/EGAT
Carol Wilson	Americas Expert	USAID/EGAT
Borany Penh	Political Economist	USAID/EGAT
Tim Mahoney	Head of Poverty Reduction Office	USAID/EGAT
Dr. Robert Aten	Team Leader, Economic Policy and Governance Team	USAID/EGAT
Dean Salpini	Senior Desk Officer, El Salvador	USAID/EGAT
Daniel Lederman	Senior Economist, International Trade Development Research Group	World Bank
David Gould	Lead Economist, Central America Dept.	World Bank
John Kellenberg	Sector Leader, Environmentally and Socially Sustainable Development, Central American Country Management Unit	World Bank
Jaime Granados	Trade Specialist, Integration, Trade and Hemispheric Issues Division	Inter-American Development Bank (IDB)
Robert Kaplan	Chief of Environment and Resources Division	IDB
Nancy Jesurun-Clements	Senior Economist, Environment and Resources Division	IDB
John Horton	Senior Specialist, Environment and Resources Division	IDB
Mike Maxey		Millennium Challenge Corporation
Kristen Penn	Director, Agriculture Operations	MCC
S. Huntington Hobbs	Director, Agriculture Operations	MCC
Stephanie Roueche		MCC
Carlos Echeverria	Director of Strategic Alliances	IICA
Maximo Torero	Director, Markets, Trade and Institutions Division	IFPRI
Hans Jansen	Research Fellow and Meso-America Office Coordinator	IFPRI

Guatemala		
Name	Title	Affiliation
Public Sector		
Ricardo Santa Cruz	Vice Minister	Ministry of Agriculture and Livestock (MAGA)
Ligia Rios	Director	Policy and Strategic Information Unit (UPIE), MAGA
Rubency Alvarado	Trade Policy Advisor	UPIE
Enrique Lacs	Vice Minister of Trade and Integration	Ministry of Economy
Carlos Herrera	Vice Minister, SME Development	Ministry of Economy
Luis Oscar Estrada	Vice Minister of Investment and Competition	Ministry of Economy
Carlos Gonzalez	Director, "Desde lo Rural"	Ministry of Economy
Julio Corado	Advisor, Foreign Trade Administration Unit	Ministry of Economy
Carmen María de Mejicano	Sub-secretary of National Food Security & Nutrition Program	National Food Security Secretariat (SESAN)
Ronaldo Quiñones	Advisor, Rural Development Technical Unit	National Planning and Programming Secretariat (SEGEPLAN)
Mario Moscoso	General Manager	Institute of Agricultural Science and Technology (ICTA)
Federico Franco	Vice Minister	Ministry of Environment and Natural Resources
Juan Andrés Godoy	CAFTA Advisor	Ministry of Environment and Natural Resources
Ruben Morales	Executive Director	National Competitiveness Program (PRONACOM)
Leonardo Camey	Congressman	National Union of Hope (UNE)
Oscar Velázquez	Coordinator of Advisors	UNE
Güido Rodas	Advisor	UNE
Julio Melgar	Advisor	UNE
Private Sector		
Fanny de Estrada	Executive Director	Guatemalan Association of Exporters (AGEXPORT)
Edgar Santizo	Exec. Coordinator, Snow Pea Committee	AGEXPORT
Ivan Buitrón	Coordinator, Linkages Program	AGEXPORT
Guillermo Díaz	Coordinator, Frozen Fruits & Vegetables Subcommittee	AGEXPORT
Rodolfo Estrada	General Manager	C.S. Internacional - Rural Development Consultants
Rodolfo Castillo	Executive Director	Guatemalan Association of Rural Entrepreneurs (AGER)
Roberto Gutiérrez	President	Red Nacional de Grupos Gestores
Mariano Ventura	Entrepreneur	Founding Participant, National Vision Plan (Plan Visión País)

Guatemala		
Name	Title	Affiliation
Multilateral and International Institutions		
Michael Collins	Agriculture Sector Specialist	Inter-American Development Bank
Patricia Garcia	Officer, Trade Policy Program	GTZ
Hugo Vargas	Coordinator, Technical Assistance for Competitiveness	Inter-American Institute for Agricultural Cooperation (IICA)
José Carlos García	Technical Officer, Trade Integration	Secretariat for Central American Economic Integration (SIECA)
NGOs, Academia, Other		
Tomás Rosada	Director, Institute for Economic and Social Studies	Universidad Rafael Landívar
Juventino Gálvez	Director, Institute for Agriculture, Natural Resources and Environment	Universidad Rafael Landívar
Jorge Méndez	President	Fundación Ágil
Mario Cuevas	Director of Finance Research	Center for National Economic Research (CIEN)
Lizardo Bolaños	Economic Coordinator, Legislative Support Program	CIEN
Susana Gauster	Research Coordinator	Coordination of NGOs and Cooperatives (CONGCOOP)
Alfredo Trejo	Director	Fundación SARES
U.S. Government		
Wayne R. Nilsestuen	Mission Director	USAID
James Stein	Economic Growth Officer	USAID
Josefina Martínez	Economist, Enterprise, Trade, and Environment Office	USAID
Daniel Orellana	Regional Coordinator for SPS and TCB	USAID/USDA
Jill Kelley	Mission Environmental Officer	USAID
Mario El Cid	Director	USAID Tourism Program
Ronny Mejía	Program Manager	USAID Tourism Program

Dominican Republic		
Name	Title	Affiliation
Public Sector		
Amílcar Romero	Senator	National Congress
Andrés Bautista	Senator	National Congress
Adriano Sánchez Roa	Senator	National Congress
Salvador Jiménez	Secretary	State Secretariat for Agriculture (SEA)
Luis Ramón Rodríguez	Deputy Secretary	SEA
Leandro Mercedes	Deputy Secretary	SEA
Magdalena Lizardo Espinal	Director	State Secretariat for Economy, Planning, and Development
Guarocuya Félix	Deputy Secretary Subsecretario	State Secretariat for Economy, Planning, and Development
América Bastida	Deputy Secretary for International Cooperation	State Secretariat for Economy, Planning, and Development
Alberto Durán	International Trade Specialist	Office of External Trade, State Secretariat for Industry and Commerce (DICOEX)
Rene Taveras		DICOEX
Andrés Van der Horst Alvarez	Executive Director	National Competitiveness Council (CNC)
Julián Cruz Herasme	Administrator, FONDEC	CNC
Jaime Moreno	Tourism Coordinator	CNC
María de Lourdes Núñez	Advisor, Trade Facilitation and Logistics	CNC
Gabriel Domínguez	Director, Technology Unit	National Agricultural, Livestock, and Forestry Research Council (CONIAF)
José Antonio Nova	Director, Natural Resources Unit	CONIAF
Henry Guerrero	Director, Competitive Agriculture Unit	CONIAF
Ofelia de Castro	Director, Planning	CONIAF
Alejandro Gómez	Director, Monitoring	CONIAF
Víctor Payano	Director	CONIAF
Rafael Pérez Duverge	Director	Dominican Institute for Agriculture, Livestock, and Forestry (IDIAF)
Ramón Arbona	Coordinator of Operations, Executive Office	IDIAF
Quilvio Cabrera	Director	Dominican Agrarian Institute (IAD)
Raúl Peralta	Planning Management	IAD
Paíno Abréu Collado	General Administrator	Agricultural Bank of the Dominican Republic
Argentina Betances	Coordinator General	IDB PATCA Project
Private Sector		
Osmar Benítez	Executive Vice President	Dominican Agriculture and Livestock Board (JAD)
Dr. Margarita Gil	Land Legislation Specialist	JAD
Dr. Virgilio Mayol	Project Manager	JAD

Dominican Republic		
Name	Title	Affiliation
Bolívar Toribio Veras	Director	National Council for the Regulation and Promotion of Dairy Industry (CONALECHE)
Grl. Juan C. Recio	Executive Director	CONALECHE
Dr. Otto González	Advisor	CONALECHE
Manuel Matos	Producer	San Juan Producers Association
Isidoro de la Rosa	President	National Confederation of Dominican Cacao Producers
Dr. Luis Cuevas	Director of Planning	Agroforestal Macapi, S.A.
Quilvio Jorge	Director	Fondo para el Desarrollo (FONDESA)
Juan Antigua	Representative	FONDESA
Isabel Abreu Núñez	Manager, Sales & Marketing	FERQUIDO
Roberto Serrano Oms	General Manager	Peravia Industrial
Luis Zoquier	Agriculture Director	Peravia Industrial
Pablo de Los Santos	Director, Manufacturing	Peravia Industrial
Dr. Enriquillo Rivas	Member, Board of Directors	Jarabacoa Poultry and Livestock Corporation
José Rafael Villar	President	Exportadora Villar
Multilateral and International Institutions		
Belgica Núñez	Sector Specialist	IDB
Antonio Morales	Representative	United Nations Food and Agriculture Organization (FAO)
Víctor de Angeles	Representative	IICA
Pável Isa Contreras	Director	United Nations World Food Program
NGOs, Academia, Other		
Benito Ferreiras	Dean	Superior Agricultural Institute Instituto Superior de Agricultura (ISA)
Dr. Domingo Carrasco	Assistant Dean	ISA
Angel Castillo	Assistant Dean	ISA
César Cruz	Assistant Dean	ISA
Dr. Rafael Ledesma	Professor	ISA
Luis Crouch	President, Board of Directors	Center for the Development of Agriculture, Livestock, and Forestry (CEDAF)
Juan José Espinal	Executive Director	CEDAF
Teófilo Suriel	Manager, Planning and Studies	CEDAF
Sesar Rodríguez	Executive Director	Dominican Environmental Consortium
Dr. Francisco Cueto Villamán	Director	Latin American Faculty of Social Sciences (FLACSO)
Daniel O'Neil	Director, Our Frontier, Border Project	Pan American Development Foundation (PADF)
Dr. Andrea Brechelt	Executive Director	Fundación Agricultura y Medio Ambiente, Inc. (FAMA)

Dominican Republic		
Name	Title	Affiliation
U.S. Government		
Jamie Rothschild	Agricultural Attaché	USDA
Carlos Suárez	Marketing Specialist	USDA
Fradbelin Escarramán	Marketing Assistant	USDA
Richard J. Goughnour	Mission Director	USAID
William Brands	Deputy Mission Director	USAID
Dr. Duty Greene	Economic Policy Advisor	USAID
Luis González	Economic Policy Coordinator	USAID
Jeffery Cohen	Program Officer	USAID
Odalís Pérez	Energy and Environmental Officer	USAID
Andrew Herscowitz	Regional Legal Advisor for the Caribbean	USAID
Danilo Cruz DePaula	Chief of Party	USAID/Competitiveness and Policy Program (CPP)
Dr. Rubén Núñez	Trade and Policies Specialist	USAID/CPP
Juan José Aracena	Agricultural Cluster Specialist	USAID/CPP
Rafael Leger Aliés	Director/Producer	Mango Cluster, USAID/CPP
Elso Jáquez	Director	Banana Cluster, USAID/CPP

El Salvador		
Name	Title	Affiliation
Public Sector		
Roberto Simán	Executive Coordinator of Millennium Account Program, Manager of Social Area	Technical Secretariat of the Presidency
Anabella de Palomo	Technical Sub-Secretary	Technical Secretariat of the Presidency
Dr. José Emilio Suadi	Vice Minister	Ministry of Agriculture and Livestock (MAG)
Rigoberto Soto	Director of Agribusiness	MAG
Juan Santos Fuentes		MAG, Office of Policy and Strategy (OPE)
Edgar Cruz Palencia	Director, Office of Policies and Strategies	MAG/OPE
Jorge Pleitez	Coordinator, Strategic Analysis Division	MAG
Oscar Mejía		MAG/OPE
Guillermo Pérez	Consultant, Policy and Strategy Office	MAG
Ana Ruth de Serrano	Office of Agribusiness	MAG
Hector Borja	Office of Agribusiness	MAG
René Alberto Salazar	Director of Commercial Treaties Administration	Ministry of Economy (MINEC)
Patricia Salazar	OPE	MINEC
Héctor Miguel Antonio Dada Hirezi	Member of Congress	Legislative Assembly of El Salvador, Economy and Agriculture Committee
Miguel Avila	Investment Advisor	National Commission for Investment (PROESA)
Haydée de Trigueros	Executive Director	National Commission for Micro and Small Enterprise (CONAMYPE)
Alfredo Alfaro	President	Multi-Sector Bank for Investment (BMI)
Samuel Salazar	Sub-Manager of Development	BMI
Felipe Rivas	Representative	Salvadoran Corporation for Tourism (CORSATUR)
Abraham López Deleón	Executive Director	National Center for Farming and Forestry Technology (CENTA)
José W. Aguilar	Manager, Technological Research	CENTA
Hada Desireé de Morales	Head of Economic and Financial Research	Central Reserve Bank
Carolina Avalos de Trigueros	Director	Red Solidaria
Ernesto Altschul	Director, Planning	Executive Commission of Autonomous Ports (CEPA)
David Mena	Territorial Coordinator	National Development Commission
Claudia Vélez	Manager, Internationalization Strategies Manager	Export Promotion Agency of El Salvador (EXPORTA)
José Eduardo Zelaya		EXPORTA

El Salvador		
Name	Title	Affiliation
Private Sector		
Silvia Cuéllar Sicilia	Executive Director	Corporation for Exporters of El Salvador (COEXPORT)
Raúl Alfaro	Vice President	Association for Small and Medium Enterprises (AMPES)
Saúl Fornos	Auditor	AMPES
Enzo Bettaglio	Executive Director	American Chamber of Commerce (AMCHAM)
Ricardo Esmahan d'Aubisson	President	Chamber of Farming and Agro-Industry of El Salvador (CAMAGRO)
Waldo Jiménez	Technical Manager	National Association for Private Enterprise (ANEP)
Ruy César Miranda Martínez	President	Cutler, Central America
Multilateral and International Institutions		
Francisco Muñoz	Representative	World Food Program
Keith L. Andrews	Representative	IICA
Jorge Escobar	Director, FRUTALES Program	IICA
Priscila Enríquez	National Competitiveness Specialist	IICA
William Pleitez	General Coordinator, Human Development Report	United Nations Development Program (UNDP))
Guillermo Villacorta	Sector Specialist	Multilateral Investment Fund, IDB
Sybill Nueninghoff	Natural Resources Specialist	IDB
Dr. Luis Alberto Espinosa	Technical Director of Animal Health	International Regional Organization for Food Safety (OIRSA)
José Muñoz	Manager, Planning Unit	OIRSA
Ricardo Tejada	Representative	World Bank
NGOs, Academia, Other		
Lilian Vega	Professor, Economics Department	Universidad Centroamericana "José Simeón Cañas" (UCA)
Roberto Góchez	Research Professor, Economics Department	UCA
Amy Angel	Manager, National Resources Section	Fundación Salvadoreña para el Desarrollo Económico y Social (FUSADES)
Carlos Orellana	Manager, International Economy Section Manager	FUSADES
Daniel Wisecarver	Academic Director	Escuela Superior de Economía y Negocios (ESEN)
Luis Morera	Researcher	ESEN
Rafael Barraza	Provost	ESEN
Dr. Carlos Carcach	Professor	ESEN
Roberto Rubio Fabián	Executive Director	Fundación Nacional para el Desarrollo (FUNDE)
José Angel Tolentino	Economist/Researcher	FUNDE
Fletch Arritt	Consultant	
Sonia González	Consultant	

El Salvador		
Name	Title	Affiliation
U.S. Government Organizations		
Lawrence Rubey	Director, Economic Growth Office	USAID
Rafael Cuellar	Agricultural Development Manager	USAID
Dave Kryzwda	Economic Attaché	U.S. Embassy
Michael McNertney	Director	USAID Program for Financial Services for SMEs
José Antonio Basagoitia	Finance Specialist	USAID Program for Financial Services for SMEs
Dennis Lesnick	Chief of Party	USAID Agricultural Diversification Program
Federico Aguilar	Deputy Chief of Party	USAID Export Promotion for Micro Small and Medium Enterprises (EXPRO)

Guatemala		
Name	Title	Affiliation
Public Sector		
Ricardo Santa Cruz	Vice Minister	Ministry of Agriculture and Livestock (MAGA)
Ligia Rios	Director	Policy and Strategic Information Unit (UPIE), MAGA
Rubency Alvarado	Trade Policy Advisor	UPIE
Enrique Lacs	Vice Minister of Trade and Integration	Ministry of Economy
Carlos Herrera	Vice Minister, SME Development	Ministry of Economy
Luis Oscar Estrada	Vice Minister of Investment and Competition	Ministry of Economy
Carlos Gonzalez	Director, "Desde lo Rural"	Ministry of Economy
Julio Corado	Advisor, Foreign Trade Administration Unit	Ministry of Economy
Carmen María de Mejicano	Sub-secretary of National Food Security & Nutrition Program	National Food Security Secretariat (SESAN)
Ronaldo Quiñones	Advisor, Rural Development Technical Unit	National Planning and Programming Secretariat (SEGEPLAN)
Mario Moscoso	General Manager	Institute of Agricultural Science and Technology (ICTA)
Federico Franco	Vice Minister	Ministry of Environment and Natural Resources
Juan Andrés Godoy	CAFTA Advisor	Ministry of Environment and Natural Resources
Ruben Morales	Executive Director	National Competitiveness Program (PRONACOM)
Leonardo Camey	Congressman	National Union of Hope (UNE)
Oscar Velázquez	Coordinator of Advisors	UNE
Güido Rodas	Advisor	UNE
Julio Melgar	Advisor	UNE
Private Sector		
Fanny de Estrada	Executive Director	Guatemalan Association of Exporters (AGEXPORT)
Edgar Santizo	Exec. Coordinator, Snow Pea Committee	AGEXPORT
Ivan Buitrón	Coordinator, Linkages Program	AGEXPORT
Guillermo Díaz	Coordinator, Frozen Fruits & Vegetables Subcommittee	AGEXPORT
Rodolfo Estrada	General Manager	C.S. Internacional - Rural Development Consultants
Rodolfo Castillo	Executive Director	Guatemalan Association of Rural Entrepreneurs (AGER)
Roberto Gutiérrez	President	Red Nacional de Grupos Gestores
Mariano Ventura	Entrepreneur	Founding Participant, National Vision Plan (Plan Visión País)

Guatemala		
Name	Title	Affiliation
Multilateral and International Institutions		
Michael Collins	Agriculture Sector Specialist	Inter-American Development Bank
Patricia Garcia	Officer, Trade Policy Program	GTZ
Hugo Vargas	Coordinator, Technical Assistance for Competitiveness	Inter-American Institute for Agricultural Cooperation (IICA)
José Carlos García	Technical Officer, Trade Integration	Secretariat for Central American Economic Integration (SIECA)
NGOs, Academia, Other		
Tomás Rosada	Director, Institute for Economic and Social Studies	Universidad Rafael Landívar
Juventino Gálvez	Director, Institute for Agriculture, Natural Resources and Environment	Universidad Rafael Landívar
Jorge Méndez	President	Fundación Ágil
Mario Cuevas	Director of Finance Research	Center for National Economic Research (CIEN)
Lizardo Bolaños	Economic Coordinator, Legislative Support Program	CIEN
Susana Gauster	Research Coordinator	Coordination of NGOs and Cooperatives (CONGCOOP)
Alfredo Trejo	Director	Fundación SARES
U.S. Government		
Wayne R. Nilsestuen	Mission Director	USAID
James Stein	Economic Growth Officer	USAID
Josefina Martínez	Economist, Enterprise, Trade, and Environment Office	USAID
Daniel Orellana	Regional Coordinator for SPS and TCB	USAID/USDA
Jill Kelley	Mission Environmental Officer	USAID
Mario El Cid	Director	USAID Tourism Program
Ronny Mejía	Program Manager	USAID Tourism Program

Honduras		
Name	Title	Affiliation
Public Sector		
Hector Hernández	Minister	Ministry of Agriculture and Livestock (SAG)
Cesar Noé Pino	Advisor	SAG
Lizardo Reyes	Advisor	SAG
Guillermo Alvarado	Advisor	SAG
Roberto Villeda	Advisor	SAG
Hugo Castillo	Vice-Minister	Ministry of Finance (SEFIN)
Mario Martínez	Director for Economic Integration and Trade Policy	Ministry of Industry and Commerce (SIC)
Ricardo Arias	Vice-Minister	Presidency
Virgilio Umanzor	Commissioner	National Competitiveness Program (PNC)
Roland Valenzuela	Minister/Director	National Sustainable Rural Development Program (PRONADERS)
Martin Ochoa	Director	MCC
Daniel Meza	Agricultural Advisor	MCC
Ivette Castillo	Director	
Private Sector		
Mario Canahuati	President	Honduran Business Council (COHEP)
Armando Urtecho Lopez	Manager	Legal Advisory Service, COHEP
Victoria Asfura	Executive Director	Center for Economic and Social Research (CIES/COHEP)
Roy Daniel Mendieta	Executive Director	Federation of Honduran Chambers of Commerce (FEDECAMARAS)
Maribel Espinosa	Executive Sub-Director	FEDECAMARAS
Vilma Sierra	Executive President	Fundación para la Inversión y Desarrollo de Exportaciones (FIDE)
Norman García	Director	Research Center for Economic and Social Proposals Centro de Investigación para Propuestas Económicas y Sociales (CIPRES/FIDE)
Mario Nufio	Member	Board of Directors, COHEP
Medardo Galindo	General Manager	Honduran Agro-exporters Federation (FPX)
Santiago Ruiz	President	Honduran National Agriculture and Livestock Federation (FENAGH)
Multilateral and International Institutions		
Dante Mossi	Chief Economist	World Bank
Carlos Gallegos Kattan	Development and Environment Officer	World Bank
José Villatoro	Agricultural Specialist	IDB
Pablo Rodas		Central American Bank for Economic Integration (CABEI)
José Deras	Agribusiness Specialist	CABEI
Marco Tulio Fortín	Director	IICA
Juana Galván	Regional Specialist	Policies and Commerce Unit, IICA

Honduras		
Name	Title	Affiliation
NGOs, Academia, Other		
Adolfo Martínez	Director	Fundación Hondureña de Investigación Agrícola
Miguel Angel Bonilla	Executive Director	Fundación para el Desarrollo Empresarial Rural
Kenneth Hoadley	Dean	Pan-American Agricultural School
Mario Contreras	Dean, Planning	Pan-American Agricultural School
Martin Schwarz	Director	Pan-American Agricultural School
Martha Ivon Romero	Director	Center for Training and Development of Human Resources (CADERH)
Lourdes Maradiaga	Manager of Operations	CADERH
Rigoberto Pérez	Secretary General	Coordinating Council of Small Producer Organizations of Honduras (COCOCH)
Martín Cardosa	Director General	National Small Producer Organization (ACAN)
Luisa García	Head of Education	Instituto Politécnico Centroamericano
Emilio Murillo	Coordinator, Manufacturing	Central American Polytechnic Institute
Helmut Schnepf	Head of Industrial Training	Central American Polytechnic Institute
U.S. Government		
Patrick Dunn	Economic Attaché	U.S Embassy
Peter Newman	Economic Section	U.S Embassy
Jonathan Wingle	Director	MCC
Carol Elwin	Sub-Director	MCC
Ana Gómez	Agricultural Specialist	USDA
Roberto Cabezas	Chief of Party	Integrated Management of Environmental Resources Program (USAID/MIRA)
José Guerrero	Deputy COP	USAID/MIRA
Peter Dickrell	Director/COP	USAID/Rural Economic Diversification Program (RED)
Andrew Medlicott	Director/COP	MCC/Farmer Training Program (EDA)

Nicaragua		
Name	Title	Affiliation
Public Sector		
Humberto Argüello	Director of the National Export Promotion Commission	Ministry of Development, Industry, and Trade (MIFIC)
Roberto Brenes	Executive Director	NICAEXPORT (Export Promotion Center)
Lastenia Enríquez	Commercial Relations Manager	NICAEXPORT (Export Promotion Center)
Silvio Ortiz	Enterprise Development Manager	NICAEXPORT (Export Promotion Center)
Sonia Somarraba	General Director of External Trade	Ministry of Development, Industry, and Trade (MIFIC)
Jesús Bermúdez	Director of Treaty Application	Ministry of Development, Industry, and Trade (MIFIC)
Arturo Solórzano	Director of Industrial Development	Ministry of Development, Industry, and Trade (MIFIC)
Pedro Blandón	National Coordinator of Industrial Policy (UNDP consultant)	Ministry of Development, Industry, and Trade (MIFIC)
Vinnitsia Leytón	Agribusiness & Forestry Investment Promotion Manager	PRONicaragua
Mario España	Manufacturing Investment Promotion Manager	PRONicaragua
Guillermo Ibarra	General Director	General Directorate of Agricultural Protection and Health (DGPSA)
Donaldo Picado	Chief, Department of Farm Inspections	General Directorate of Agricultural Protection and Health (DGPSA)
Claudia Tijerino	Director of External Cooperation	Ministry of Agriculture and Forestry (MAGFOR)
Julio Castillo	General Director for Policy	Ministry of Agriculture and Forestry (MAGFOR)
Orlando Solórzano	Minister	Ministry of Development, Industry, and Trade (MIFIC)
Azucena Castillo	Representative (ALN) Minister (Fmr.)	National Assembly of Nicaragua MIFIC (Administration of Enrique Bolaños)
Arlene de Franco	Manager (Fmr.) Director, Natural Resources	Presidential Competitiveness Commission (Administration of Enrique Bolaños) MIFIC (Administration of Enrique Bolaños)
Henry Pedroza	Director of Research	Nicaraguan Institute of Farming and Livestock Technology (INTA)
Private Sector		
Ana Cecilia Vega	Executive Director	Chamber of Industries of Nicaragua (CADIN)
Enrique Zamora	General Manager President	Agropecuaria LAFISE Association of Producers and Exporters of Nicaragua
Jorge Brenes	General Manager	Association of Producers and Exporters of Nicaragua

Nicaragua		
Name	Title	Affiliation
Donald Tuckler	Executive Secretary	National Association of Poultry Breeders and Feed Producers (ANAPA)
Mario Amador	President General Manager	Chamber of Industries of Nicaragua National Committee of Sugar Producers – Nicaragua
Mario Salvo Horvilleur	Corporate Technical Director Minister (Fmr.)	Eskimo, S.A. MAGFOR (Administration of Enrique Bolaños)
Jorge Medina	Assistant for Technical Direction	Eskimo, S.A.
Wilfredo Severino Escobar	President	Association of Producers of Santa Lucia (ASOPROL)
Efraín García Mendoza	General Manager	Association of Producers of Santa Lucia (ASOPROL)
Alfredo Marín	Executive Director	Industrial San Martín (beef processor)
Gabriel Solórzano	President	FINDESA
Roberto Bendaña	Coffee Producer, Entrepreneur and Competitiveness Specialist	
Manuel Alvarez Solórzano	Vice-President President	Nicaraguan Agricultural Producers Union (UPANIC) National Association of Sorghum Producers (ANPROSOR)
Felipe Arguello	Executive Director	Nicaraguan Agricultural Producers Union (UPANIC)
Fernando Mansell	President	Association of Rice Producers (ANAR)
Francisco Vargas García	Executive Secretary	National Association of Sorghum Producers (ANPROSOR)
Multilateral and International Institutions		
Carlos Siezar	Private Sector Specialist	World Bank
Jaime Cofre	Sector Specialist	Inter-American Development Bank
Carmen Alvarado	Program Officer for Central America	Swiss Agency for Development and Cooperation (COSUDE)
NGOs, Academia, Other		
Luís Alaniz	Economist	Fundación Nicaragüense para el Desarrollo Económico y Social (FUNIDES)
Yessenia Téllez	Economist	Fundación Nicaragüense para el Desarrollo Económico y Social (FUNIDES)
Gerardo Escudero	Representative in Nicaragua	Inter-American Institute for Cooperation on Agriculture (IICA)
Pedro Cussianovich	Organic Agriculture Specialist	Inter-American Institute for Cooperation on Agriculture (IICA)
Roberto Rondón	Bio-Energy Consultant	Inter-American Institute for Cooperation on Agriculture
Rafael Salazar	National Representative	Michigan State University
Karla Schiebel	Marketing Director	INCAE Business School
Felipe Pérez	Professor	INCAE Business School
Verónica Solís	Director, Executive Programs	INCAE Business School
James Johnson	Agribusiness Consultant	

Nicaragua		
Name	Title	Affiliation
Jefferson Shriver	Deputy Director	Catholic Relief Services
Telémaco Talavera	President President	National Agrarian University (UNA) National Council of Universities
Maritza Obando	Consultant	Central American Agricultural Innovation Network Project (IICA/COSUDE)
Diana Saavedra	Policy Specialist	Inter-American Institute for Cooperation on Agriculture (IICA)
U.S. Government		
Steven Fondriest	Trade & Agribusiness Office Chief	USAID/Nicaragua
Tim O'Hare	Senior Economist	USAID/Nicaragua
Adriana Moreno Blanco	MFEWS National Representative	USAID/MFEWS Project
Carlos Vega	Country Coordinator - Nicaragua	USAID/CAFTA-DR Regional Trade Program
Carlos Bravo	Chief of Party	USAID/PROCAFTA Project
Margarita Cruz	Senior Trade Advisor	USAID/PROCAFTA Project
David Krzywda	Economic Officer	U.S. Embassy
Naomi C. Fellows	Economic Officer	U.S. Embassy
Ervin Leiva	Agricultural Specialist	U.S. Department of Agriculture – Foreign Agricultural Service
Eddy A. Jerez	Deputy Resident Country Director	Millennium Challenge Corporation

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- C.2 Incidence of Indigence by Geographic Area, CAFTA-DR Countries, 1990-2005
- C.3 Annual Growth of Real GDP, CAFTA-DR Countries, 1980-2006
- C.4 Annual Growth of Per Capita Real GDP, CAFTA-DR Countries, 1980-2006
- C.5 Real Agricultural Sector Growth Rates for CAFTA-DR Countries, 1980-2006

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**Table C.1 Incidence of Poverty by Geographic Area, CAFTA-DR Countries, 1990-2005
(percentage of the population)**

Table C.1.a—Total

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua
1990	26.3			69.4 ^a	80.8	
1991						
1992						
1993						73.6
1994	23.1				77.9	
1995			54.2			
1996						
1997	22.5		55.5		79.1	
1998				61.1		69.9
1999	20.3		49.8		79.7	
2000		46.9				
2001			48.9			69.3
2002	20.3	44.9		60.2	77.3	
2003					74.8	
2004	20.5	54.4	47.5			
2005	21.1	47.5				

Source: UN-ECLAC (2006b). ^a Data is for 1989.

Table C.1 b—Urban

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua
1990	24.9			53.6 ^a	70.4	
1991						
1992						
1993						66.3
1994	20.7				74.5	
1995			45.8			
1996						
1997	19.3		44.4		72.6	
1998				49.1		64.0
1999	18.1		38.7		71.7	
2000		42.3				
2001			39.4			63.8
2002	17.5	41.9		45.3	66.7	
2003					62.7	
2004	18.7	51.8	41.2			
2005	20.0	45.4				

Source: UN-ECLAC (2006b). ^a Data is for 1989.

Table C.1 c—Rural

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua
1990	27.3			77.7 ^a	88.1	
1991						
1992						
1993						82.7
1994	25.0				80.5	
1995			64.4			
1996						
1997	24.8		69.2		84.2	
1998				69.0		77.0
1999	22.3		65.1		86.3	
2000		55.2				
2001			62.4			77.0
2002	24.3	50.7		68.0	86.1	
2003					84.8	
2004	23.1	59.0	56.8			
2005	22.7	51.4				

Source: UN-ECLAC (2006b). ^a Data is for 1989.

**Table C.2. Incidence of Indigence by Geographic Area, CAFTA-DR Countries, 1990-2005
(percentage of the population)****Table C.2.a—Total**

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua
1990	9.9			42.0 ^a	60.9	
1991						
1992						
1993						48.4
1994	8.0				53.9	
1995			21.7			
1996						
1997	7.8		23.3		54.4	
1998				31.6		44.6
1999	7.8		21.9		56.8	
2000		22.1				
2001			22.1			42.2
2002	8.2	20.3		30.9	54.4	
2003					53.9	
2004		29.0	19.0			
2005	7.0	24.6				

Source: UN-ECLAC (2006b). ^a Data is for 1989.

Table C.2.b — Urban

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua
1990	6.4			26.4 ^a	43.6	
1991						
1992						
1993						36.8
1994	5.7				46.0	
1995			14.9			
1996						
1997	5.5		14.8		41.5	
1998				16.0		33.9
1999	5.4		13.0		42.9	
2000		18.5				
2001			14.3			33.4
2002	5.5	17.1		18.1	36.5	
2003					35.1	
2004	5.8	25.9	13.8			
2005	5.6	22.3				

Source: UN-ECLAC (2006b). ^a Data is for 1989.

Table C.2.c – Rural

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua
1990	12.5			77.7 ^a	72.9	
1991						
1992						
1993						62.8
1994	9.7				59.8	
1995			29.9			
1996						
1997	9.6		33.7		64.0	
1998				41.8		57.5
1999	9.8		34.3		68.0	
2000		28.7				
2001			33.3			55.1
2002	12.0	26.3		37.6	69.5	
2003					69.4	
2004	11.0	34.7	26.6			
2005	9.0	28.8				

Source: UN-ECLAC (2006b). ^a Data is for 1989.

Table C.3 Annual Growth of Real GDP, CAFTA-DR Countries, 1980-2006

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua	CAFTA-DR Average ^a
1980	0.8	8.0	-11.8	3.8	0.7	4.6	1.0
1981	-2.3	4.3	-10.4	0.6	2.5	5.4	0.0
1982	-7.3	1.7	-6.3	-3.5	-1.4	-0.8	-2.9
1983	2.9	4.6	1.5	-2.6	-0.9	4.6	1.7
1984	6.2	1.2	1.3	0.5	4.4	-1.6	2.0
1985	1.0	-2.1	0.6	-0.6	4.2	-4.1	-0.2
1986	5.8	3.5	0.2	0.1	0.7	-1.0	1.6
1987	6.9	10.1	2.5	3.5	6.0	-0.7	4.7
1988	3.8	2.2	1.9	3.9	4.6	-12.4	0.6
1989	5.1	4.4	1.0	3.9	4.3	-1.7	2.8
1990	3.9	-5.4	4.8	3.1	0.1	-0.1	1.1
1991	2.6	0.9	3.6	3.7	3.2	-0.2	2.3
1992	9.2	8.0	7.5	4.8	5.6	0.4	5.9
1993	7.4	3.0	7.4	3.9	6.2	-0.4	4.6
1994	4.7	4.3	6.0	4.0	-1.3	3.3	3.5
1995	3.9	4.7	6.4	5.0	4.1	5.9	5.0
1996	0.9	7.2	1.7	3.0	3.6	6.3	3.8
1997	5.6	8.2	4.2	4.4	5.0	4.0	5.2
1998	8.4	7.4	3.8	5.0	2.9	3.7	5.2
1999	8.2	8.2	3.4	3.8	-1.9	7.0	4.8
2000	1.8	8.1	2.2	3.6	5.8	4.1	4.3
2001	1.1	3.6	1.7	2.3	2.6	3.0	2.4
2002	2.9	4.4	2.3	2.2	2.7	0.8	2.6
2003	6.4	-1.9	2.3	2.1	3.5	2.5	2.5
2004	4.3	2.0	1.8	2.7	5.0	5.1	3.5
2005	5.9	9.3	2.8	3.2	4.0	4.0	4.8
2006	7.9	10.7	3.8	4.6	6.0	3.7	6.1

Source: World Bank 2007. ^a Un-weighted.

Table C.4 Annual Growth of Per Capita Real GDP, CAFTA-DR Countries, 1980-2006

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua	CAFTA-DR Average ^a
1980	-2.0	5.5	-13.1	1.3	-2.6	1.5	-1.6
1981	-5.0	2.0	-11.4	-1.8	-0.8	2.3	-2.4
1982	-9.8	-0.5	-7.0	-5.9	-4.5	-3.7	-5.2
1983	0.0	2.4	0.9	-5.0	-4.0	1.7	-0.6
1984	3.3	-0.9	0.7	-1.9	1.1	-4.2	-0.3
1985	-1.7	-4.1	-0.2	-3.0	1.0	-6.5	-2.4
1986	3.0	1.4	-0.8	-2.2	-2.3	-3.4	-0.7
1987	4.0	7.9	1.3	1.2	2.8	-3.0	2.4
1988	1.1	0.2	0.5	1.6	1.5	-14.4	-1.6
1989	2.4	2.4	-0.6	1.6	1.2	-3.9	0.5
1990	1.3	-7.3	3.0	0.8	-2.8	-2.4	-1.2
1991	0.1	-1.0	1.6	1.3	0.2	-2.6	-0.1
1992	6.5	5.9	5.4	2.5	2.6	-2.1	3.5
1993	4.9	1.0	5.1	1.6	3.2	-2.9	2.2
1994	2.2	2.4	3.8	1.7	-4.1	0.8	1.1
1995	1.4	2.8	4.1	2.6	1.2	3.5	2.6
1996	-1.6	5.2	-0.4	0.7	0.8	4.2	1.5
1997	2.9	6.2	2.1	2.0	2.2	1.9	2.9
1998	5.7	5.6	1.6	2.7	0.2	1.8	2.9
1999	5.6	6.3	1.4	1.5	-4.4	5.1	2.6
2000	-0.5	6.3	0.2	1.2	3.1	2.4	2.1
2001	-1.1	1.9	-0.2	-0.1	0.2	1.5	0.4
2002	0.8	2.8	0.4	-0.2	0.3	-0.4	0.6
2003	4.4	-3.4	0.4	-0.3	1.2	1.6	0.6
2004	2.4	0.4	0.0	0.2	2.7	4.6	1.7
2005	4.1	7.6	1.0	0.8	1.8	3.4	3.1
2006	6.4	9.0	2.2	2.1	3.9	1.7	4.2

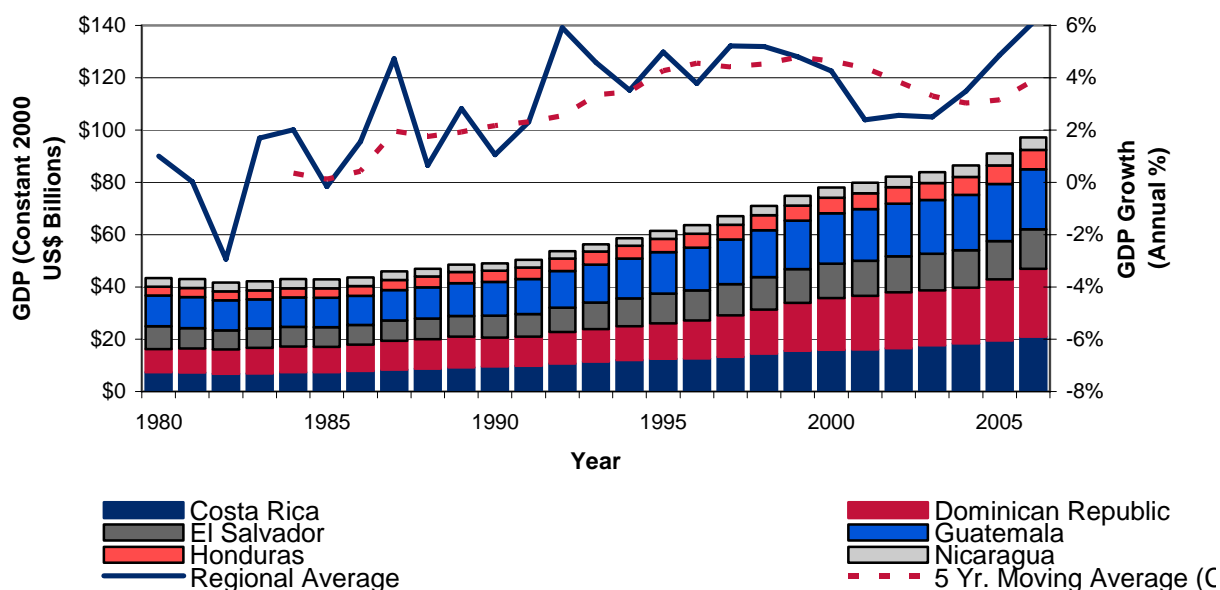
Source: World Bank 2007. ^a Unweighted.

**Table C.5 Real Agricultural Sector Growth Rates for CAFTA-DR Countries
1980-2006 (% change)**

Year	Costa Rica	Dominican Republic	El Salvador	Guatemala	Honduras	Nicaragua	Regional Average
1980	-0.5	4.9	-5.4	1.6	2.1	-19.0	-2.7
1981	5.1	5.5	-10.5	1.2	2.2	9.5	2.2
1982	-4.7	4.6	-7.9	-3.0	4.5	2.8	-0.6
1983	4.0	3.1	2.3	-1.7	-6.6	5.8	1.2
1984	10.0	0.0	3.0	1.6	7.4	-5.3	2.8
1985	-5.5	-3.6	-2.0	0.3	2.3	-4.8	-2.2
1986	4.8	-0.5	-4.3	-0.8	-0.7	-8.8	-1.7
1987	8.4	2.9	1.3	3.9	8.3	-3.2	3.6
1988	2.4	-1.3	-1.0	4.5	-0.5	-10.2	-1.0
1989	3.0	2.3	-0.6	3.1	10.0	9.2	4.5
1990	8.7	-8.6	6.5	4.1	1.1	0.2	2.0
1991	6.6	4.2	-0.3	3.1	6.1	-3.9	2.7
1992	3.6	6.2	8.0	3.0	3.6	3.1	4.6
1993	3.7	0.6	-2.6	2.2	-0.6	1.8	0.8
1994	3.3	-1.8	-2.4	2.4	0.9	10.9	2.2
1995	7.3	5.2	4.5	3.5	8.8	8.7	6.3
1996	1.8	9.2	1.3	2.6	2.5	9.4	4.4
1997	1.5	3.3	0.4	2.9	4.2	-0.6	1.9
1998	8.2	1.1	-0.7	3.7	-1.9	-0.4	1.7
1999	4.5	8.8	7.7	2.1	-8.5	6.0	3.4
2000	0.7	5.6	-3.1	2.6	11.7	12.1	4.9
2001	1.4	8.1	-2.6	1.2	-0.5	2.7	1.7
2002	-3.3	2.5	0.4	1.8	4.9	-0.3	1.0
2003	7.4	-2.6	0.9	3.2	2.6	1.9	2.2
2004	0.1	3.5	3.0	3.7	7.0	4.7	3.7
2005	2.8	7.3	5.7	2.6	0.5	3.1	3.7
2006	10.8	9.0	2.8	3.5	5.1	2.7	5.6

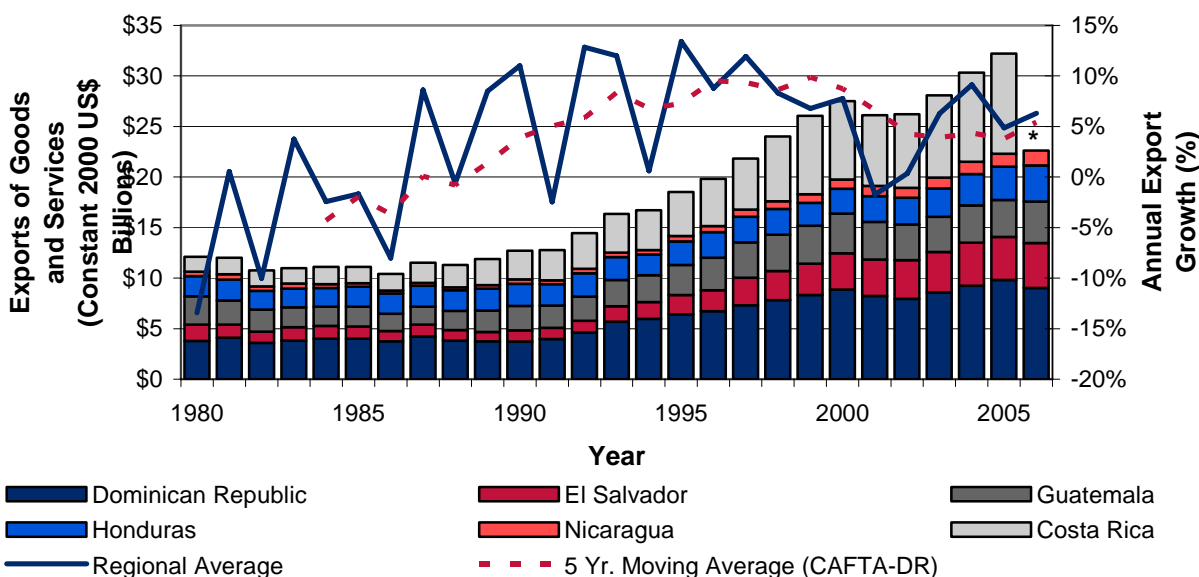
Source: World Bank 2007; BCCR 2007; BCN 2007.

Graph C.1
Real GDP and Annual Real GDP Growth with 5-year trend line,
CAFTA-DR Countries (1980 – 2006)



Source: World Bank 2007.

Graph C.2
Real Exports of Goods and Services and Annual Real Export Growth
with 5-year trend line, CAFTA-DR Countries (1980 – 2006)



*Data for Costa Rica in 2006 is unavailable in constant 2000 US\$.

Source: World Bank 2007